THE KINGBIRD (ISSN 0023-1606), published quarterly (Winter, Spring, Summer, Fall) is a publication of The Federation of New York State Bird Clubs, Inc., which has been organized to further the study of bird life and to disseminate knowledge thereof, to educate the public in the need of conserving natural resources and to encourage the establishment and maintenance of sanctuaries and protected areas. Individual member's dues are $15.00 annually, of which $8.00 is for THE KINGBIRD publication. Other membership classes are: Family Membership ($20.00), Supporting Member ($25.00), or Life Member ($200.00) – payable over a four-year period in equal installments, if member so desires. Student membership is $10.00. THE KINGBIRD institutional subscriptions: $18.00 per year on calendar year basis only. Single copies: $5.00. Memberships are on a calendar year basis. Applicants for Annual or Family Membership applying in the second half of the year may reduce payment by one-half.

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Application for membership is 4000 West Road, Cortland, NY 13045. Second class postage paid at Cortland, NY.

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Statement of Ownership Management and Circulation

1. Title of Publication – THE KINGBIRD Publication No. (ISSN 0023-1606)
2. Date of Filing – September 7, 1988
3. Frequency of Issue – Quarterly (Winter, Spring, Summer, Fall)
4. Publication Offices – 4000 West Road, Cortland, NY 13045
5. Business Offices – 4000 West Road, Cortland, NY 13045
6. Publisher – The Federation of New York State Bird Clubs, Inc.,
c/o Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, NY 14850
   Editor – Paul DeBenedictis, 306 Kensington Place, Syracuse, NY 13210
   Managing Editor – None; Circulation Manager – American Printing and
   Typesetting Co., 4000 West Rd., Cortland, NY 13045
7. Owner – The Federation of New York State Bird Clubs, Inc., a non-profit organization
   c/o Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, NY 14850
8. Known bondholders – None
9. The purpose, function, and nonprofit status of this organization and the exempt
   status for Federal income tax purposes have not changed during preceding 12 months
10. Extent and nature of circulation:

   A. Total number copies printed
   B. Paid circulation
      1. Sales through dealers and carriers, street vendors and counter sales
      2. Mail subscription
      C. Total paid circulation
      D. Free distribution by mail, carrier, or other means, samples, complimentary, and other free copies
      E. Total distribution
     F. Copies not distributed
        1. Office use, left over, unaccounted, spoiled after printing
        2. Return from news agents
     G. Total

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11. I certify that the statements made by me above are correct and complete.

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Editor – Paul A. DeBenedictis
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Editor – Robert Spahn
Circulation Manager – American Printing & Typesetting Co.
Figure 1. Annual New York state Christmas Bird Count abundances of Downy Woodpecker (DWP) and Hairy Woodpecker (HWP) for the period 1960-1985. Open circles connected by lines represent birds/100 party-hours for all New York State counts and for all New York State counts less Long Island as labelled; unconnected open circles represent the 38 core counts; parameters for regression lines are in Table 1.
An Assessment of the Downy Woodpecker and Hairy Woodpecker on Recent New York State Christmas Counts

ROBERT P. YUNICK

The Downy Woodpecker (Picoides pubescens) and Hairy Woodpecker (P. villosus) are two of the commoner woodpeckers found throughout New York State. Both occur as permanent residents and breeding birds and are variably migratory (Eaton 1912; Bull 1964 and 1974; Beardslee and Mitchell 1965, and AOU 1983). Generally the Downy Woodpecker outnumbers the Hairy Woodpecker, except in the Adirondack Mountains (Eaton 1912), and is more widespread, as the Hairy prefers deeper forest (Beardslee and Mitchell 1965, Bent 1964, Bull 1964, Eaton 1912). Using Christmas Bird Count data, I have assessed changes in their annual reported abundance, their abundance relative to each other, geographic differences in abundance, and the trend in reports for both species from 1960 to 1985.

Methods

Christmas Bird Count data published in Audubon Field Notes and its successor, American Birds, for the period 1960 through 1985 were collected and analyzed as described previously (Yunick 1988) on all counts bearing a location name solely in New York State. Abundance data was normalized and expressed as birds/100 party-hours of observer effort. Three subsets of data were derived from these data. For continuity of coverage, a subset of 38 core counts, each reported in at least 24 of the 26 years, was analyzed separately. These core counts were reported on 99.0 percent of the theoretically possible dates. Data from a geographically separate group of ten Long Island counts reported in at least 22 of the 26 years formed a second subset. These Long Island counts were reported on 97.4 percent of the theoretically possible dates. Finally, a subset denoted as “the rest of the state” was obtained by subtracting the Long Island results from those for all of New York State. Regression analyses were conducted on each of these four data groups for each species to measure changes in abundance over time.

For selected locations, average abundances at each location over the 1960-1985 period were derived by totalling all reported abundances at the site and dividing by the sum of the total party-hours at the site. The two groups of locations so treated were 1) the 38 core counts; and 2) a group of 18 counts which were reported in at least 10 to 22 of the 26 years. These abundances were mapped to show their geographic distribution.
Results and Discussion

The annual reported abundances of both species are represented in Figs. 1 and 2. The regression parameters which describe population trends are summarized in Table 1. The distribution maps appear in Figs. 3 and 4.

Downy Woodpecker: This species showed erratic variation in reported abundance from year to year and an overall decline in numbers reported (Fig. 1). Regression analysis estimates the decline in abundance over the 26 year period as 27.5 percent for all counts in the state, 29.1 percent on the 38 core counts, and 27.2 percent for counts other than on Long Island. On Long Island (Fig. 2) the decline was 25.9 percent. The pattern of annual variation on Long Island differed from that of the rest of the state. There was less amplitude to annual variations on Long Island and changes in abundance were not always synchronous with changes observed elsewhere in New York. This was most notable in 1965 when most of the state experienced a reporting minimum whereas Long Island had a record high occurrence of this species.

Hairy Woodpecker: Comparison of Figs. 1 and 2 shows some similarity in the pattern of annual variation with those of the Downy Woodpecker, although year-to-year variation was at lesser amplitude for both reporting areas, especially on Long Island. Statewide decline of Hairy Woodpecker reports over the 26 year period was 54.5 percent, while on the 38 core counts it was 60.8 percent, and 55.8 percent on all but the Long Island counts. These declines are approximately double those of Downy Woodpecker in the respective same areas. On Long Island, the decline was 28.8 percent, approximately the same as that of the Downy Woodpecker. For both species the greatest decline occurred on the 38 core counts, and the least decline occurred on Long Island.

The declines occurred during a time when the number of Christmas Bird Counts reported increased 60 percent, and the number of total party-hours per count increased by 73-89 percent (Yunick 1988). A similar analysis of Christmas Bird Count abundance of another woodland bird, the White-breasted Nuthatch (Sitta carolinensis), revealed reporting declines of 17-34 percent (Yunick 1988), approximating those found here for Downy Woodpecker.

Annual Variation: Field note reports in *The Kingbird* offer some suggestion as to the reason for some of the observed year-to-year variability in peak abundance, but little suggestion as to the existence of or a reason for declining reports. Some peak abundances appear to correlate with times of above average or irruptive migratory activity. The Downy Woodpecker has been characterized either as an occasional autumn migrant (Bull 1964), becoming more common in some years along the outer beaches (Bull 1974), or as a regular migrant along the Atlantic
Figure 2. Annual Christmas Bird Count abundances of Downy Woodpecker (DWP) and Hairy Woodpecker (HWP) on Long Island for the period 1960-1985. Open circles connected by lines represent birds/100 party-hours; parameters for regression lines are in Table 1.
Coast (Short 1982). In western New York, migration has not always been detectable because movements were not always widespread (Beardslee and Mitchell 1965). Northern populations are considered mostly migratory, occurring irregularly southward (AOU 1983, Bent 1964). Less is mentioned about migrations of Hairy Woodpecker. Bull (1964, 1974) characterized it as an occasional migrant, becoming more numerous on the rare occasion of an autumn irruption. Northerly populations undergo some movement (AOU 1983, Short 1982), with some suggestion of that there is a general southward autumn movement (Bent 1964).

The small peak in abundance in 1961 shown in Fig. 1 may relate to Rosche's (1961) autumn report in Region 1: "Many observers commented on the large number of Hairy and Downy Woodpeckers moving through some parts of the region at the same time the chickadee movement was in progress. Some were thought to be a larger-sized northern population." That same year Long Island showed no such response (Fig. 2).

In autumn 1965, Davis and Heath (1966) labelled the migration a "flight year" for both species on Long Island. They reported the banding of 15 Hairy Woodpeckers (3 Sep-19 Oct) and 133 Downy Woodpeckers (31 Jul-30 Oct) at four banding stations, with numbers peaking 17-30 Oct. Apparently Downy Woodpeckers concentrated on Long Island during or after that flight and were reported in record numbers on that year's Christmas Bird Counts (Fig. 2), while elsewhere in the state their reported numbers continued plunging from a 1963 peak (Fig. 1). In the following year, Davis and Heath (1967) made no mention of Hairy Woodpecker bandings while reporting the banding of 101 Downy Woodpeckers at two Long Island stations (1 Aug-31 Oct). Peak numbers occurred 6-30 Oct; at one station where 32 were banded, only five had occurred up to 9 Oct, and the maximum was eight on 29 October. Late October appears to be a peak coastal migratory period for these species. Bent (1964) cites inland migration from late August into November for Hairy Woodpecker, and not uncommonly in October and November for Downy Woodpecker.

Following that 1966 autumn migration, Rusk and Scheider (1967) reported high winter counts in Region 5 of these and other woodpeckers in swamps and woodlots where elm trees were dying. On that year's Christmas Bird Counts there was a modest increase in reported Downy Woodpeckers following two low years, but no significant response by Hairy Woodpecker.

Also related to dying elms, McMichael and Wilcove (1977) attributed increased reports of both species in the Buffalo area in the winter of 1975-1976 to a concentrating effect of diseased and infested trees which
attracted these bark-feeding birds. Contrary to their statement that there had been no real woodpecker population increase, the Christmas Bird Count results for both species in Fig. 1 show momentary peaks in 1974 and 1975. If Dutch elm disease had been sufficiently widespread at the time, it could have caused concentrations on a grand enough scale over large areas of the state and could have created perceived population increases. Dutch elm disease appeared to play a part in attracting other irruptive woodpeckers into urban areas for viewing in the 1956-1966 irruptive period (Yunick 1985). Black-backed Woodpeckers (P. arcticus) and Three-toed Woodpeckers (P. tridactylus) were attracted to infested elms in western New York in 1956-1957 and 1960-1961. By 1972, Goodwin (1972) noted that as the elm disease pressed northward, these woodpeckers no longer appeared in large numbers in the lower Great Lakes area as they had when the disease persisted there in 1956-1966.


The last mention in *The Kingbird* of an autumn flight of Downy Woodpeckers was made by Rusk and Scheider (1969) for autumn 1968: "...definite irruption this fall," with counts of 10-18 per day during 14 Sep-13 Oct, primarily along Lake Ontario. That year's Christmas Bird Count showed modest reporting increases for both species. These results again point out how two relatively common, resident species can exhibit moderate variability in abundance, yet receive only passing mention in most *Kingbird* Regional reports. With increased interest in describing and measuring forest events, these species deserve more attentive monitoring and reporting effort. Perceived commonness is no justification for ignoring such species.
Relative Abundance and Distribution: Eaton (1912) gives one of the few quantitative assessments of the abundance of these species relative to one another. Downy Woodpeckers outnumbered Hairy Woodpeckers 7:1 in summer and 3:1 in autumn and winter in what Eaton referred to as the then "more thickly settled portions of the state." Rusk and Scheider (1967) reported a 2:1 ratio during the winter of 1966-1967 in central New York in swamps and woodlots with dying elms. McMichael and Wilcove's (1977) repeated observations in a Buffalo infested-elm study area during Jan-Mar 1975 averaged 1.11:1 in favor of the Downy Woodpecker.

There was considerable geographic and temporal variation in the species ratios on these Christmas Bird Counts. The statewide annual ratios averaged 3.25:1, and ranged from 2.46:1 (1961 and 1965) to 4.19:1 (1980) in favor of the Downy Woodpecker during the 26-year period. A comparison of regression values in Fig. 1 indicates Downy Woodpeckers predominated by 2.37:1 in 1960, increasing to 3.91:1 by 1985, for all New York except Long Island; and by 6.79:1 to 7.07:1, respectively, on Long Island (Fig. 2). The increase in relative abundance of Downy Woodpeckers from 1960 to 1985 appears caused by a greater relative decline in reports of Hairy Woodpecker. The greater relative abundance of Downy Woodpeckers on Long Island also appears related to the lesser numbers of Hairy Woodpeckers due to the lack of its preferred deeper-forest habitat in a heavily residential area.

During this 26-year period, 1360 Christmas Bird Counts were reported, and Downy Woodpecker was reported on 1359 (99.93 percent) of them, failing to appear on only a 1962 count called "Ocean off Long Island." In contrast, Hairy Woodpecker appeared on 1335 counts (98.16 percent). On only 24 of these counts, involving 17 widely scattered count locations, did Hairy Woodpecker numbers equal or exceed Downy Woodpecker numbers. This happened most frequently on the Old Forge (five years) and Ft. Plain (four years) counts, and most commonly among all the counts in the 1962 (four counts) and 1978 (three counts) seasons.

Eaton (1912) indicated that the Hairy Woodpecker may outnumber the Downy Woodpecker in wooded areas, and that the Downy Woodpecker outnumbered the Hairy Woodpecker everywhere except the Adirondacks. Annual species ratios from the three Adirondack counts (Saranac Lake, Old Forge, and Elizabethtown) averaged 1.52:1 in favor of the Downy Woodpecker (range 0.469:1 to 4.50:1), or a little less than one-half the statewide average. These counts were run a total of 48 times in the 26 years, and accounted for seven of the 17 occasions when the species ratio was unity or favored the Hairy Woodpecker. The greatest preponderance of the Hairy occurred at Saranac Lake in 1977 with a count of 15:32. Saranac Lake also had the lowest overall ratio of 1.22:1
Table 1. Regression Parameters for Downy Woodpecker (DWP) and Hairy Woodpecker (HWP) in Figure 1.

Regression Equation
Birds/100 party-hours = a + b(year)

<table>
<thead>
<tr>
<th>Species</th>
<th>Case</th>
<th>a</th>
<th>b</th>
<th>r²</th>
<th>F-ratio</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWP</td>
<td>All NY State Counts</td>
<td>176.18</td>
<td>-1.166</td>
<td>0.3196</td>
<td>11.274</td>
<td>0.0026</td>
</tr>
<tr>
<td>DWP</td>
<td>38 Core Counts</td>
<td>186.08</td>
<td>-1.275</td>
<td>0.3492</td>
<td>12.880</td>
<td>0.0015</td>
</tr>
<tr>
<td>DWP</td>
<td>NYS less Long Island</td>
<td>200.34</td>
<td>-1.320</td>
<td>0.2827</td>
<td>9.459</td>
<td>0.0052</td>
</tr>
<tr>
<td>DWP</td>
<td>Long Island only</td>
<td>103.72</td>
<td>-0.661</td>
<td>0.1784</td>
<td>5.212</td>
<td>0.0316</td>
</tr>
<tr>
<td>HWP</td>
<td>All NY State Counts</td>
<td>92.69</td>
<td>-0.876</td>
<td>0.6698</td>
<td>48.676</td>
<td>0.00001</td>
</tr>
<tr>
<td>HWP</td>
<td>38 Core Counts</td>
<td>100.96</td>
<td>-0.998</td>
<td>0.7032</td>
<td>56.873</td>
<td>0.00001</td>
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<tr>
<td>HWP</td>
<td>NYS less Long Island</td>
<td>119.34</td>
<td>-1.139</td>
<td>0.7044</td>
<td>57.195</td>
<td>0.00001</td>
</tr>
<tr>
<td>HWP</td>
<td>Long Island only</td>
<td>15.94</td>
<td>-0.109</td>
<td>0.1890</td>
<td>5.590</td>
<td>0.0256</td>
</tr>
</tbody>
</table>

1. Year is the last two digits of the calendar year; i.e., 1960=60, 1961=61, etc.
Figure 3. Geographical distribution of average annual abundance in birds/100 party-hours of Downy Woodpecker on Christmas Bird Counts in New York State with a minimum of 10 years coverage. Underlined values are the 38 core counts.
Figure 4. Geographical distribution of average annual abundance in birds/100 party-hours of Hairy Woodpecker on Christmas Bird Counts in New York State with a minimum of 10 years coverage. Underlined values are the 38 core counts.
among the northern counts. Two counts on the Adirondack periphery at Watertown and Plattsburgh also showed species ratios well below the state average, at 1.72:1 and 1.85:1, respectively. Thus, while these northern counts tended toward a 1:1 distribution of these species, the actual occasions when Hairy Woodpecker equaled or outnumbered Downy Woodpecker on these Christmas Bird Counts was very rare (1.25 percent of all counts).

The greatest disparity in relative abundance between these species occurred in metropolitan downstate areas and on Long Island where the least favorable Hairy Woodpecker habitat exists. Extreme ratios, listed as count location, year, and actual counts of Downy Woodpecker: Hairy Woodpecker, include: Staten Island 1969, 52:1; Brooklyn 1972, 32:1; Queens 1980, 60:0, and 1981, 77:2; Lower Hudson 1981, 120:3; Southern Nassau County 1982, 97:1; Queens 1982, 52:1; Staten Island 1982, 52:0; Brooklyn 1983, 42:1; Montauk 1983, 79:1; and Brooklyn 1985, 32:1. My banding data from four different locations also show widely differing results in species ratio. At my home banding station (a suburban yard feeding station in Schenectady), it was 36:12 or 3.0:1 over the period 1963-1987. Nearby at Vischer Ferry, Saratoga County, where I banded in a mixed deciduous-brush woodland in the floodplain of the Mohawk River, it was 96:18 or 5.33:1 during 1964-1987. At a year-round feeding station at an Adirondack summer cottage at Jenny Lake, near Corinth, it was 45:53 or 0.849:1 during 1970-1987. At Island Beach State Park, New Jersey, a barrier beach not unlike those of Long Island, but farther south, it was 112:3 or 37.3:1 during 1965-1987. These geographic and habitat trends are consistent with these Christmas Bird Count results.

The Island Beach results also were consistent with the observed annual variability in numbers of Downy Woodpecker on Christmas Bird Counts. Fifty-eight percent of the bandings occurred in a small number of peak years representing only 25 percent of the years when I banded. A maximum of 16 was banded in 1980. Other peaks occurred in 1965, 1968, 1972, 1974, and 1979, all based on a one-week banding experience each October.

A comparison of regression analyses by species between Long Island and the rest of the state showed two different time-related trends. The ratio of Hairy Woodpecker reports between mainland New York and Long Island was 5.41:1 in 1960 and decreased to 3.36:1 by 1985. This appears attributable to a much greater decline in reports of this species in mainland New York (55.8 percent decline vs. 28.8 percent decline on Long Island). Despite the less favored Hairy Woodpecker habitat on Long Island, the reported abundances of the species have undergone less collective change in this habitat than elsewhere in New York.
The Downy Woodpecker situation is quite different. The geographic ratio of reports of this species for mainland New York and Long Island was 1.89:1 in 1960 and 1.86:1 in 1985. This suggests that whatever has caused the reporting decline for this species is occurring with approximately equal impact in both areas. Figs. 3 and 4 further explore some of the geographical variation in the reported Christmas Bird Count abundance of these two species. The highest Downy Woodpecker concentrations (Fig. 3) generally occur from Schenectady and Troy southward in counties bordering the Hudson River. Parts of the Southern Tier and Finger Lakes Region also have above average abundances. The Southern Rensselaer County Count has the highest average of 177.3 Downy Woodpeckers/100 party-hours, followed by Jamestown at 169.6. Southern Rensselaer has been reported in 19 of the 20 years of its existence between 1966 and 1985.

Southern Rensselaer County also heads the list of Hairy Woodpecker average abundances in Fig. 4 at 76.8 birds/100 party-hours, also followed by Jamestown at 62.1, and Scio at 62.0. Contrary to what might be expected from Eaton's assessment, the Adirondack counts do not stand out from the others in the state as sites for higher abundance of Hairy Woodpecker. The top nine counts with abundances at or above 50 birds/100 party-hours occur primarily (six of the nine) in a band south of the Mohawk River from Oneida to Troy. Twelve of the 13 counts with abundances between 40 and 49 birds/100 party-hours occur in the Finger Lakes Region-Southern Tier (eight) or border the Hudson Valley (four).

Even Long Island, which is a relatively small geographical entity, appears to show an abundance gradient for both species between the more wooded north shore and more urbanized south shore. This gradient appears more clearly defined for the Hairy Woodpecker, in keeping with the Hairy's shy, retiring, forest-dwelling character, as opposed to the relatively more cosmopolitan and less selective habitat preferences of the Downy Woodpecker.

**Summary**

An analysis of New York State Christmas Bird Count data for 1960-1985 on Downy Woodpecker and Hairy Woodpecker showed reporting declines of 26-29 percent for the former; and 29 percent for the latter on Long Island, and 55-61 percent elsewhere in the state. Both species showed variations in annual abundance that in some cases appear attributable to irruptive migratory behavior. These variations were greatest for the Downy Woodpecker.

Overall, Downy Woodpeckers outnumbered Hairy Woodpeckers 3.35:1, but due to differing rates of decline over the study period, these ratios showed a time-related increase primarily on mainland New York.
They showed also considerable geographic variability with ratios as high as 50-100:1 in metropolitan habitat unfavorable to the Hairy Woodpecker. Only rarely did Hairy Woodpecker exceed Downy Woodpecker, and it did so at widely scattered locations most often in the Adirondack Mountains. Saranac Lake had the lowest count average ratio of 1.22:1, and lowest ratio on an individual count of 0.469:1. Areas adjoining the Mohawk and Hudson valleys, as well as parts of the Finger Lakes Region and Southern Tier had the highest average reported abundances for both species.

**Literature Cited**


1527 Myron Street, Schenectady, New York 12309
STATUS AND BREEDING ECOLOGY OF THE BLACK TERN
(Chlidonias niger) IN NEW YORK

JANET R. CARROLL

The Black Tern population has declined in many parts of its range. Although no surveys have been conducted to determine the exact number of Black Terns and Black Tern colonies now in New York, available information indicates that this tern has declined significantly. An intensive survey of Black Tern colonies and studies of productivity and causes of its decline are strongly recommended.

DISTRIBUTION
The Black Tern breeds in North America throughout most of the Canadian provinces south to south-central California, northern Nevada, northern Utah, Colorado, Nebraska, Iowa, south-central Illinois, Indiana, Ohio, Pennsylvania, New York, Vermont, and Maine. It formerly bred farther south to Missouri and Kentucky (A.O.U. 1983). According to Bent (1921) it was one of the most common species of the marshes, wet meadows, and sloughs of the plains with its center of abundance in Manitoba. In New York, which is at the southern edge of its range, it is found mainly along the Erie-Ontario and St. Lawrence plains (Andrle and Carroll 1988). The wintering grounds of the Black Tern are from Panama south to Peru and Surinam (A.O.U. 1983).

MIGRATION
In the fall Black Terns migrate to the Atlantic and Pacific coasts, then south to their wintering grounds. Concentrations of about 2,000 to 5,500 Black Terns were observed in the 1950s and 1960s along the upper Niagara River in New York (Beardslee and Mitchell 1965, R. Andrle pers. comm.). Few are observed there today (R. Andrle pers. comm.). Numbers of Black Terns observed in the area of the upper Niagara River during fall migration for the period 1965 through 1987 appear in Table 1. Large numbers of Black Terns were also observed during the fall on Long Island (Bull 1964). Observers there no longer regularly report this species, and Long Island observers consider the Black Tern rare in migration (C. Safina pers. comm.). Records from American Birds indicated that Black Terns are usually seen in migration along the coast from late August to mid September, and in the spring beginning in early April.

HISTORY IN NEW YORK
The Black Tern has nested in New York since at least the early 1900s. Eaton (1910) indicated that 150 pairs were breeding near the mouth of Big Sandy Creek (now Lakeview Wildlife Management Area [WMA]) in Jefferson County in 1903. He also mentioned a breeding colony at
Table 1. Numbers of Black Terns observed during fall migration along the upper Niagara River, Ontario and New York, 1965-1987.

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of Black Terns Reported</th>
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<tr>
<td>8/28/65</td>
<td>5,500</td>
</tr>
<tr>
<td>8/30/65</td>
<td>3,500</td>
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<tr>
<td>9/4/65</td>
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<tr>
<td>8/22/87</td>
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Data from *Prothonotary*, the newsletter of the Buffalo Ornithol. Soc. (R. Andrle *pers. comm.*).

the Montezuma marshes (Seneca and Cayuga counties). *Kingbird records*, Genesee Ornithological Society records (R. Spahn *pers. comm.*), and Bull (1974) documented a total of 52 colony locations in the state. In addition to the two already mentioned, large colonies were known to occur at Eightmile Creek and at North Pond near Sandy Pond (Oswego County), Wilson Hill WMA (St. Lawrence County), Perch River WMA (Jefferson County), and Buck Pond (Monroe County). It is likely that other large colonies existed as well. The locations of all known colonies in existence prior to 1980 and the highest number of individuals in each, if numbers were found in the literature, are shown in Table 2. Colony locations since 1980 and their estimated population, if known, are also shown in Table 2.
FIGURE 1. BREEDING DISTRIBUTION OF THE BLACK TERN.

Black Tern

Number of 10km blocks in which records

- Possible breeding: 32
- Probable breeding: 20
- Certain breeding: 12

(ANDRLE AND CARROLL IN PRESS)

(BULL 1974)
Table 2. Pre-1980 and Post-1980 Black Tern colonies in New York.

<table>
<thead>
<tr>
<th>Location</th>
<th>Pre-1980 Historic High Numbers (Pairs)</th>
<th>Post-1980 Estimated Colony Size (Pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erie County:</td>
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<td></td>
</tr>
<tr>
<td>Tifft Street Marsh</td>
<td>6 (1978)</td>
<td>none</td>
</tr>
<tr>
<td>Near Tonawanda Creek</td>
<td>unknown</td>
<td>none</td>
</tr>
<tr>
<td>Genesee County:</td>
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</tr>
<tr>
<td>Iroquois NWR</td>
<td>unknown</td>
<td>few</td>
</tr>
<tr>
<td>Oak Orchard WMA</td>
<td>unknown</td>
<td>few</td>
</tr>
<tr>
<td>Wyoming County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prairie Slough</td>
<td>unknown</td>
<td>none</td>
</tr>
<tr>
<td>Monroe County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ling Road</td>
<td>10</td>
<td>none</td>
</tr>
<tr>
<td>Braddock Bay WMA</td>
<td>unknown</td>
<td>20</td>
</tr>
<tr>
<td>Mouth of Genesee River</td>
<td>6-10</td>
<td>none</td>
</tr>
<tr>
<td>Buck Pond-North</td>
<td>30-40</td>
<td>1-5</td>
</tr>
<tr>
<td>Buck Pond-Southwest</td>
<td>40+</td>
<td>12</td>
</tr>
<tr>
<td>Salmon Creek</td>
<td>unknown</td>
<td>30 ad &amp; yg</td>
</tr>
<tr>
<td>Round Pond</td>
<td>20</td>
<td>none</td>
</tr>
<tr>
<td>Yanty Creek</td>
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<td>14</td>
</tr>
<tr>
<td>Cranberry Pond</td>
<td>10</td>
<td>5-6</td>
</tr>
<tr>
<td>Brush Creek</td>
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<td>5</td>
</tr>
<tr>
<td>Shore Acres</td>
<td>2</td>
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</tr>
<tr>
<td>Bald Eagle Creek</td>
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<td>few</td>
</tr>
<tr>
<td>Northeast corner Irondequoit Bay</td>
<td>6</td>
<td>none</td>
</tr>
<tr>
<td>Tryon Park</td>
<td>30</td>
<td>none</td>
</tr>
<tr>
<td>Mendon Ponds</td>
<td>unknown</td>
<td>none</td>
</tr>
<tr>
<td>Rose's Marsh</td>
<td>10</td>
<td>none</td>
</tr>
<tr>
<td>Seneca County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montezuma NWR</td>
<td>200 (1960)</td>
<td>few</td>
</tr>
<tr>
<td>Howland Island WMA</td>
<td>8 (1972)</td>
<td>none</td>
</tr>
<tr>
<td>Pond S. of Seneca Falls</td>
<td>unknown</td>
<td>10</td>
</tr>
<tr>
<td>Onondaga County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clay Swamp</td>
<td>15 (1955)</td>
<td>none</td>
</tr>
<tr>
<td>North Syracuse</td>
<td>22 (1966)</td>
<td>none</td>
</tr>
<tr>
<td>Marsh east of Syracuse</td>
<td>1 (1958)</td>
<td>none</td>
</tr>
<tr>
<td>Cicero Center</td>
<td>8 (1957)</td>
<td>none</td>
</tr>
<tr>
<td>Madison County:</td>
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<td></td>
</tr>
<tr>
<td>Bolivar Swamp</td>
<td>3 (1971)</td>
<td>none</td>
</tr>
<tr>
<td>Canastota</td>
<td>unknown</td>
<td>none</td>
</tr>
<tr>
<td>Wayne County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodus Bay - South end</td>
<td>20-30</td>
<td>few</td>
</tr>
</tbody>
</table>
Oswego County:
- Peter Scott Swamp
- Wilson Swamp (e. of Oswego)
- Sage Creek
- Grindstone Marshes
- North Pond/Sandy Pond
- South Pond/Sandy Pond
- Deer Creek WMA
- Selkirk Shores State Park
- Ramona Beach
- Eightmile Creek (w. of Oswego)
- East End of Oneida Lake

Jefferson County:
- Black Pond (Eldorado)
- Renshaw Bay
- Lakeview WMA (mouth of Big Sandy)
- Wilson Bay
- Perch Lake WMA
- Mouth of Perch River
- Ives Street Marsh
- Pt. Vivian

St. Lawrence County:
- Upper and Lower Lakes WMA
- Wilson Hill WMA
- Black Lake

Oneida County:
- Utica Marsh

Franklin County:
- Tupper Lake

Clinton County:
- Lake Alice

ADDITIONAL POTENTIAL COLONY SITES:
- Mud Bay, Jefferson County
- Dexter Marsh WMA, Jefferson County
- Keuka Lake, Yates County

unknown = no information available on colony size
few = less than ten
PO = listed as "Possible breeder" in Andrle and Carroll (1988)

The current distribution of the Black Tern in New York as documented by the Breeding Bird Atlas (Andrle and Carroll 1988) indicated a shrinking range within the state as compared to the historic range identified by Bull (1974) (Fig. 1). At least 22 former colonies no longer exist and many of the still viable colonies have very few nesting pairs; most have less than ten. Based on an informal survey of individuals familiar with Black Tern colonies, there are now estimated to be only 31 colonies remaining in New York, with a "best guess" estimate of 200 to 300 breeding pairs. The decline in numbers at the North Pond, Montezuma National Wildlife Refuge (NWR), and North Syracuse colonies are shown in Table 3. Today there are only three known colonies where sizeable numbers of Black Terns breed. These are Wilson Bay, Jefferson County, with approximately 50 pairs noted in 1984 (R. Walker pers. comm.), Perch River WMA with 20 to 30 pairs (L. Chamberlaine pers. comm.), and Braddock Bay WMA with approximately 20 pairs (R. Spahn pers. comm.). Due to uncertainty about its status the Black Tern has been listed as a species of special concern in New York since 1983. As a result of this review this tern is proposed for relisting as either threatened or endangered.

Table 3. Black Tern colony declines at three locations in New York (numbers in pairs except where otherwise indicated).

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>North Pond</td>
<td>40-45</td>
<td>45</td>
<td>15</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Montezuma NWR (birds)</td>
<td>2000</td>
<td>200</td>
<td>100+</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>

*Figures considered unreliable by current Montezuma NWR staff.

Sources of information: Goodwin (1960), Kingbird spring and summer issues, G. Hocutt pers. comm.
CAUSES OF DECLINE

The Black Tern has suffered from loss of freshwater marsh habitat and human disturbance throughout its range (Office of Migratory Bird Management 1987). In some areas in Wisconsin and Indiana the Black Tern has disappeared from marshes where habitat is still available (Mossman 1981, Rabenold 1988). Draining of marshes for agriculture was noted in California as one cause for a decline there; more recent declines were thought to have been due to pesticides (Cogswell 1977). In the prairie pothole region of Canada, contamination of wetlands from aerial spraying of pesticides, insecticides, and herbicides may be having a direct impact on Black Terns since these activities have been shown to cause reproductive failure in birds (Sheehan et al. 1987). They may also be affecting the Black Tern indirectly by killing the invertebrate prey base (Sheehan et al. 1987). Insects can make up as much as 94% of the diet of young Black Terns (Cuthbert 1954), and are always a major source of food during the breeding season (Goodwin 1960, Dunn 1979, Firstencel 1987).

One problem Black Terns experienced on their wintering ground in Panama was competition for food with the introduced game fish, Peacock Bass (Cichla ocellaris). During the 1960s this piscivore was introduced into the Gatun Lake system where it fed on small fish like the Silverside (Melaniris chagresi), one of the major prey items of immature Black Terns which spend their first winter and summer in Panama. As the Peacock Bass spread through the Gatun Lake system, the Black Terns could not compete for food and were forced to move away (Zaret and Paine 1973).

In New York many of the colony losses were caused by draining of wetlands for agriculture or other purposes. One wetland in North Syracuse, where 22 pairs had been counted in 1966, is now the site of a shopping center. Mossman (1983) felt that the Black Tern had declined in some areas below a “threshold” density at which nesting is attractive or productive. Such a density factor could be significant in New York, which is at the edge of the Black Tern’s range and where most colonies now have few Black Terns.

Decreases in colony sizes in areas along Lake Ontario such as those at North Pond may be caused by the increased lake water level, destruction of shoreline marshes, and the building of marinas in bays, streams, and wetlands with increased boat traffic which in turn causes disturbance and may even wash out nests.

Organochlorines were found in Black Tern tissues and eggs collected from a colony at Yanty Creek marsh west of Rochester along the shore of Lake Ontario (Firstencel 1987). Levels of PCBs ranged from 2.07 to 6.39 ppm and DDE from 0.30 to 4.83 ppm. In addition the following
levels of other chemicals were found: hexachlorobenzene 0.002 to 0.06 ppm, octachlorostyrene 0.003 to 0.09 ppm, and mirex 0.01 to 0.04 ppm. Goodwin (1960) and Firstencel (1987) found that Black Terns at Lake Ontario colonies consistently fed on both small fish and insects. Organochlorine contamination of fish in Lake Ontario is well documented, and the presence of mirex, which is found mainly in Lake Ontario, indicates that the organochlorine contamination at least in part came from there (K. Karwowski pers. comm.).

At many inland marshes suitable nesting habitat, a mixture of vegetation and shallow, open water (Weller and Spatcher 1965), has been lost. At Montezuma NWR the invasion of Purple Loosestrife into the marsh which began in the late 1950s has diminished the habitat. By 1979 Purple Loosestrife covered 1,200 acres, filling in areas of open water and crowding out the cattail and bulrush. Additionally in the early 1970s the habitat at a major Black Tern nesting area at Montezuma, Tschache Pool, was destroyed by a combination of events with the major damage to the vegetation the result of Hurricane Agnes in 1972. The water levels at Tschache Pool and other parts of the refuge are now kept too high for nesting Black Terns (G. Hocutt pers. comm.). At Perch River WMA open areas have filled in with cattail and wild rice reducing nesting habitat. In addition increased fishing activity at the management area may be causing disturbance (J. Lamendola pers. comm.). At Wilson Hill WMA the water levels are kept high because of the regulation of the St. Lawrence River; this makes the habitat unsuitable for nesting Black Terns (J. Lamendola pers. comm.). At some wildlife management areas water levels are kept high in the spring to attract migrating waterfowl and then lowered during the summer (D. Odell pers. comm.). The impact of this management activity on the Black Tern is not known.

NORTH AMERICAN STATUS

The Black Tern is on the U.S. Fish and Wildlife Service list of Migratory Nongame Birds of Management Concern with declines noted in four regions: Region 1-Pacific Northwest, Region 3-Midwest, Region 5-North-east, and Region 6-Western. The annual rate of decline in the United States for the period 1966 to 1985 from Breeding Bird Survey data was calculated as 8.1%, among the highest of any of the species monitored (Office of Migratory Bird Management 1987). The Black Tern has been on the American Birds' Blue List since 1978 (Tate 1986). In the Northeast the Black Tern is listed as endangered in Pennsylvania (D. Brauning pers. comm.) and is proposed for endangered status in Ohio (D. Rice pers. comm.). There are only three or four colonies still extant in Pennsylvania and two or three in Ohio. As of 1981 Vermont had eight known breeding locations with an estimated population of 180 to 300 breeding pairs; more than half this population was at one marsh complex (Laughlin and Kibbe 1984).
FIGURE 2. SEASONAL ABUNDANCE OF BLACK TERNs (JANUARY 1951 TO DECEMBER 1954) WITHIN A 50 MILE RADIUS OF ROCHESTER, NY (INCLUDES BERGEN SWAMP, BUSHNELL'S BASIN, OAK ORCHARD, FINGER LAKES, MONTEZUMA, SODUS BAY). (TANGHE 1955).
BREEDING ECOLOGY

BREEDING SEASON: In the spring Black Terns are observed in New York as early as mid April. Fig. 2 shows the seasonal abundance of Black Terns in the Rochester area for the period January 1951 to December 1954 as described by Tanghe (1955).

Nesting began at Yanty Creek marsh as early as 24 May (Firstencel 1987). At two nests observed by Goodwin (1960) at North Pond egg laying began on 17 June and subsequent eggs were laid a day apart. The clutch size of the Black Tern is from one to four eggs, usually three. Mean clutch sizes have been reported at from 2.3 to 2.9 (Cuthbert 1954, Bergman et al. 1970, Bailey 1977, Mossman 1981, Faber and Nosek 1985, Firstencel 1987).

Except where indicated, the following information is from Goodwin's (1960) research at North Pond. For three nests observed the incubation period was about 21 days. Males, as well as females, shared incubation, but there was a tendency for females to incubate for longer periods and to leave the nest less frequently. After the eggs hatched, the shells were carried away from the nest, usually within 15 minutes. The nest site was vacated when the chicks were from a week to two weeks old, although they stayed within about 25 m (82 ft) of the nest until fledging (Bailey 1977). The chicks could swim one to two days after hatching. The first flight of young Black Terns occurred when they were 20 to 24 days old.

NESTS AND NEST SITES: The Black Tern nest is a shallow, cuplike structure made with pieces of emergent vegetation gathered from the area near the nest site (Bergman et al. 1970). Most of the vegetation is added to the nest as the eggs are laid (Bailey 1977). According to Goodwin (1960) nest building continues throughout incubation and until the nest site is abandoned. Nesting substrates include inactive muskrat houses, muskrat feeding platforms, floating cattail rootstalks, dead floating emergent vegetation, mats of floating algae, and floating boards (Weller and Spatcher 1965, Bergman et al. 1970, Bailey 1977, Rabenold 1986). Most of the nests at Yanty Creek marsh were on cattail rootstalks; the nests were both wet and dry (Firstencel 1987).

NESTING HABITAT: The Black Tern usually returns to the same general location each year to nest, although not always to the same nest site. Stern et al. (1985) found that 67% of recaptured terns nested within the same primary wetland areas. Several factors can dramatically change the amount and distribution of emergent vegetation within a marsh habitat, including muskrat activity, drought, winter storms, and floods. Because of the dynamic nature of the marsh, nest sites change from year to year, and nesting may not occur if the habitat becomes unsuitable.

Black Tern colonies in New York are found in marshes at the mouths of rivers, especially those which enter Lake Ontario, in ponds, along
shores of large lakes, and at large inland marsh complexes. The marsh at North Pond was dominated by Narrow-leaf cattail (*Typha angustifolia*). Although the cattail growth was dense, there were many openings probably created by muskrats (Goodwin 1960). The dominant vegetation at Yanty Creek marsh was Broad-leaf cattail (*Typha latifolia*). Yanty Creek marsh is separated from Lake Ontario by a narrow spit of land covered with woody vegetation and is well protected from human disturbance (Firstencel 1987).

Nesting areas were described as having an interspersion of vegetation and open water (Weller and Spatcher 1965, Mossman 1983). Tilghman (1979) found nests in areas where emergent vegetation covered 51 to 75% of the marsh with open water available in 85% of the sites. Emergent vegetation was described as thick (Goodwin 1960, Faber and Nosek 1985), moderate (Dunn 1979), and low and thin (Cuthbert 1954).

The Black Tern was characterized by Brown and Dinsmore (1986) as an area dependent species. They found that the Black Tern nested mainly in marshes larger than 4 ha (9.9 a) and were most frequently found in marshes greater than 20 ha (49.4 a). Yanty Creek marsh where Firstencel (1987) counted 14 nests was 3.6 ha (8.9 a). Black Terns were frequently found at high densities in small marshes within a large marsh complex (Brown and Dinsmore 1986).

COLONY SUCCESS: Hatching success (number of eggs hatched/number of eggs laid) has been reported by Faber and Nosek (1985) at 18% and by Firstencel (1987) at 54% in 1983 and 39% in 1984. In the Faber and Nosek study one entire colony was abandoned for unknown reasons and additional egg losses occurred from nest flooding because of heavy rains. In a recent study of marsh nesting common terns on Long Island the hatching success rate was 71% (Safina *et al.* 1988), and in an East German study 86% of 89 Black Tern eggs hatched (Cramp 1985). An estimated fledging success rate (number of young fledged/number of eggs laid) of 25% was calculated in Wisconsin (Mossman 1980). At three colonies in Indiana the fledging rate was calculated at 30% (Rabenold 1988); this included a colony of five nests which failed for unknown reasons. Fledging rates of 17% (Dunn 1979) and 29% (Bergman *et al.* 1970) also have been reported, but it should be noted that determining fledging rates for Black Terns is very difficult because of the mobility of the young birds once they fledge.

Many causes of nesting failure are mentioned in the literature, including avian predation by such species as Great Horned Owls and Black-crowned Night-Herons (Bailey 1977, Rabenold 1988), wind and wave action washing away nests, particularly in open situations (Cuthbert 1954), muskrat activity (Bergman *et al.* 1970), high, rising water and increased current (Faber and Nosek 1985). The floating nature of Black Tern nests predisposes them to many of these losses.

High levels of dioxin and PCBs in marsh nesting Forster's Terns were
correlated with reproductive impairment at a Wisconsin colony (Harris et al. 1985). The potential effects of toxic chemicals on breeding success of the Black Tern are not known at this time.

**RECOMMENDATIONS**

A survey of active and historic colonies is urgently needed in New York in order to more accurately assess the current status of the Black Tern in the state. Reproductive success should be evaluated at both inland and Lake Ontario colonies. Factors affecting productivity such as predation, flooding of nesting areas, pesticides, and human disturbance should be examined at the larger colonies.

Since many of the Black Tern colonies are found on refuges and wildlife management areas, interspersion of vegetation in relation to open water should be measured to determine if Black Tern nesting habitat can be enhanced, particularly in view of observed population declines in these areas. Weller and Spatcher (1965) found that changes in water level which affected the amount of emergent vegetation had a dramatic influence on Black Terns in an Iowa marsh. After a drawdown of about two years which allowed for dense growths of emergent vegetation, the marsh was flooded. Black Terns had been absent during the drawdown, but immediately began using the newly flooded marsh. As many as 200 pairs nested there when the emergent vegetation was interspersed with small pools. As the marsh character changed from a small-pool complex to an open marsh, Black Tern numbers declined until finally they disappeared completely. In Wisconsin Black Tern populations were consistently high in managed areas where water levels were regulated to maintain "semi-open tracts of emergent vegetation" (Mossman 1983).

Since Black Terns share freshwater marshes with other species reportedly declining in New York, such as Pied-billed Grebe (Podilymbus podiceps), Least Bittern (Ixobrychus exilis), American Coot (Fulica americana), and Common Moorhen (Gallinula chloropus), management actions should be taken to enhance the habitat of these species. In addition proposals for acquisition of wetland habitat should consider size, proximity of nearby marshes, and potential management for species richness which will benefit declining marsh species like the Black Tern. In Iowa Weller and Frederickson (1973) found that marsh bird populations reached their peak of production when the ratio of emergent vegetation cover to open water was about 50:50. In general, bird species diversity was at a maximum in the years when there were many small pools interspersed with vegetation.

**CONCLUSION**

It is apparent that the Black Tern is declining rapidly in New York and throughout North America. At the present rate of decline, it is not unrealistic to believe that the Black Tern will disappear from New York within the not too distant future. New York observers are encouraged
to report the locations of Black Tern colonies to the Nongame Unit, New York State Department of Environmental Conservation, Wildlife Resources Center, Delmar, NY 12054.

LITERATURE CITED


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A BIBLIOGRAPHY OF NEW YORK STATE ORNITHOLOGY FOR 1986

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____. Highlights of the Winter season. Kingbird 36(2):84-86.
____. Highlights of the Spring season. Kingbird 36(3):140-143.
____. Highlights of the Summer season. Kingbird 36(4):209-211.
Black Tern chases Northern Harrier: On 26 July 1987 Linda Paradowski and I were birding the Tonawanda Management Area and the adjacent Iroquois National Wildlife Refuge. While driving on Owen Road, between Meadville and Ditch Roads, we observed a Northern Harrier cross in front of us. We stopped the car and followed the hawk for a few seconds before it dropped behind tall reeds which blocked our view. Less than a minute later we again observed the harrier flying over the reeds. This time, however, the harrier was being followed and harassed by a Black Tern. A third bird, an unidentified blackbird, was seen following the first two birds. The tern was seen flying extremely close to the tail and rump of the harrier although we could not be sure if contact was made. The harrier flew away from the area with the tern in pursuit. We were able to follow the three birds for about thirty seconds before they flew out of sight.

Roberta McDonald, 1392 E. Park Rd., Grand Island, N.Y. 14072
Common Raven Nest in Allegany County: Except for us, only the singer's mother would call this song beautiful as a loud gutteral “Wrrruck” rolled from the throat of the huge black bird circling overhead.

This was 16 Apr 1988 in the north section of the Town of Ward, Allegany County, New York, about 4:00 P.M. Daylight Time. Earlier in the day Earl Schriver, from Baden, Pa., had discovered the huge nest and needed someone as a second witness. What a privilege this was not only to see the nest but also to document it for Cornell’s Laboratory of Ornithology.

As we first hiked through the mature Red Pine forest with heavy canopy and little understory, just a few spindly saplings and berry vines, all was so quiet that I wondered if we were headed right. Earl's running comments did nothing for my unease: “Now – if I can find it again. I thought it was here. These snow patches look like droppings. I'm looking for some twigs I broke....” The monotonous rows of huge Red Pines stretched on and on and all around us. Then at last, the big male bird began calling overhead the “song” described above as it circled in an alternate soaring-flapping pattern and as Earl relocated the huge stick nest. About three feet in diameter and two and a half feet deep, it was secured among the branches about 70 feet up against the trunk of a Red Pine. At the base of the tree, scattered among small patches of snow, was a profusion of fresh bird droppings. Young were in that nest! Although we used binoculars and the sky was cloudy-bright, we could not see the young over the edge of the nest. Earl lacked his climbing gear and so could not attempt to band the young at this time.

This bird guarding the nest was not a Turkey Vulture as the wings were solid black, not two-toned, and were held flat, not at a dihedral angle. It was not large enough to be an eagle nor was the call the creaky cackle of an eagle. Also, the tail was wedge-shaped rather than like a fan. It was not a crow. Even though all black, the bird was much larger than a crow and had pointed wings carried on the horizontal, not bent upward, and spanning four to four and a half feet. Again, the pointed tail was wedge-shaped, not of the fan shape of the crow. The robust gutteral “Wrrruck” was not the crow's thinner “Caw”. Not so agile a flier as this bird, a crow would have been defeated in these high winds. This was a Common Raven, *Corvus corax*, a species I have previously seen and heard a few times fairly recently in Allegany County, as well as many times over the years in the northwestern United States and in both Canada and Alaska.

Although very common in Western New York early in the nineteenth century, in late years the Common Raven has been rare here even as late as 1974. In recent years Elizabeth Brooks and I have seen individuals of this species fairly regularly in the Town of Ward, as have John and Lois Sheffield, residents here. This is the first modern confirmed nesting record in New York away from the Adirondack and Catskill highlands.

Vivian Mills Pitzrick, Amity Lake, Belmont, New York 14813
Corrigendum to Vol. XXXVIII, No. 2:

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Highlights of the Spring Season

ROBERT SPAHN

Another year with a relatively dismal spring migration overall! Let's try once more to discover why, or at least what, has led to such feelings. Weather certainly had its impact. This spring it was fairly uniform over the state, generally warm and dry, but with local variation in the timing of specific cooler and wetter periods. March with its seesaw temperatures produced bursts of birds and birder activity. There were many early arrival dates, particularly among water birds, and a flood of hawks late in the month. April began warm. People worried about early leafing and blooming. Silly people! The rest of the month was cool and damp with many arrivals delayed and the eagerly awaited surge of raptors snuffed out. In May we saw the annual race of foliage versus warblers unfold and as usual the leaves won; they probably nearly always do. In fact, I suspect that one will find that warblers usually delay their arrival in most seasons until the leaves are well out and their attending insects and larvae are present. We will nearly always find the bulk of the warbler waves well hidden in the foliage. The major warbler push started about May 8-9, a bit late, but for the next couple of weeks the land birds were at least a little better than last spring. However, there were no major groundings in May and no major weather systems to produce them. The migration just sort of fizzled out, with few individuals even trickling through after 31 May. Later in this report we can compare the arrival date tables relative to observers' perception of the season's timing. The absence of a report from Region 10, once again leaves a large gap in any attempt to obtain a statewide picture of the migration.

Reviewing the records of the species and families I have emphasized on past spring migrations, we find the beginning inauspicious. There are no loon counts of real significance. Reports of grebes are mixed, Pied-billed up a bit in several Regions and Horned confusing - low counts on the coast and Great Lakes, but very numerous on other inland lakes, e.g. a single raft of 212 on Cayuga Lake in Region 3. The inland explosion of Double-crested Cormorant continues, now accompanied by an explosion of articles discussing the rumored or feared impact on local fisheries. Most breeding species, except for the Great Blue Heron, appear to be in some to a great deal of trouble, and wanderers from the south were few in number. Cattle Egret appeared in only 3 Regions, fewer sightings than 15 years ago. The waterfowl picture again looks good on a chart at a distance; all of the expected species are present. However, on close look the numbers of most species are
not impressive. Just compare peak counts in the Region 3 report at Montezuma National Wildlife Refuge with those of a few years ago. Also notable this season are Tundra Swan numbers which seem back on course, best in the west; Greater White-fronted Goose, a rarity in New York, in Regions 1, 2, 5 and 9; only a single Brant in Region 5 away from their stronghold in Regions 8 and 9; Am. Black Duck and Blue-winged Teal still low in most Regions; Eurasian Wigeon in Regions 1, 2 and 5; Canvasback up a bit in Regions 2, 5 and 9, down in Regions 4 and 9; Redhead just plain scarce; Ring-necked Duck in good numbers, especially Upstate; scaup so-so to low across the state; scoters low where noted at all; and merganser reports generally positive.

Raptor counts this spring can serve as good teaching tools. The overall counts at Braddock Bay and Derby Hill, where we have a number of years of data and daily counts, were well off their peak totals. Looking for causes, we find that poor weather for concentrating hawks occurred through the last 3/4 of April and most of May, cutting Broad-winged Hawk totals to less than that of a single good day in a “good” year. Surely we didn’t lose over half the population over just last winter. Thus, the timing of good flight weather is critical in assessing population trends. This year conditions were favorable in late March and you will find record daily counts for N. Harrier, Red-shouldered Hawk and Red-tailed Hawk, species whose peak passage is at this time. Several species typically peaking at that time also set seasonal record totals. If tables were prepared for each significant watch, you would also easily see that several of the daily highs for the year occurred either on the same date or on consecutive dates arranged as one would expect for the typical west to east flow of raptors along the south shores of the Great Lakes. In some cases the serious student would find the study of hourly data from some of the watches of interest. Turkey Vulture set record seasonal highs at Braddock Bay, Derby Hill and the newer watch at Ripley, with daily highs exceeding the annual totals of only a few years ago. Other positives were the numbers of Osprey, Bald Eagle, and Golden Eagle counted. Negatives included few Merlins and Peregrine Falcons, a lack of raptor rarities, and a very poor season for N. Goshawk despite the fine weather when their numbers are normally near peak. This season we have additional hawk watch data from Sapsucker Woods in Region 3, Coot Hill in Region 7, and Hawk Mt. and Mt. Peter in Region 9, but too little historical data to put these numbers in context. Away from the hawk watches, you will find interesting notes on Bald Eagle nesting in the reports from Regions 1 and 3.

Shorebirds, gulls and terns had in common a season with little exciting news to report. Of the nine Regions reporting, only Region 3 claimed good habitat for shorebirds in at least a few locations and backed this
## Waterbird Arrivals 1988

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**Bold** Regional Record Early  **Italics** Also isolated earlier report(s).
with some good counts, e.g. 195 Spotted Sandpipers and 246 Pectoral Sandpipers, both very high spring numbers, from May's Pt. Pool at Montezuma National Wildlife Refuge. Among the gulls we find only a Thayer's Gull in Region 2 and a Lesser Black-backed Gull in Region 9 of special note. Comments about terns most often noted scarcity. Foster's Tern appeared only in Region 2. The most interesting report was a Least Tern at Montezuma National Wildlife Refuge in late May, the first there in over 20 years.

Common Barn-Owl was reported only from Region 2. Snowy Owl lingered into the season in three Regions and Short-eared Owl in six Regions, again staying to breed in Regions 1 and 2. Owl banding added to the Braddock Bay raptor banding project, with 101 N. Saw-whet Owls banded. This effort offers interesting possibilities for timing and route studies if Braddock Bay and Noyes Sanctuary data can appear side by side some year. Both species of "common" goatsuckers appear to be in serious decline across the state. We read elsewhere of concern for hummingbird population status, but don't find enough commentary in these reports to say anything here. Among the woodpeckers, there are only a couple of notes of sapsucker scarcity in Regions 5 and 9 and otherwise local comments.

Finally moving to the passerines, we find the comment so usual of recent years, "good variety, but poor numbers", again applicable, particularly for the thrushes, warblers, and many sparrows. There were too few flycatcher notes for assessment. Purple Martin and Cliff Swallow had some increases noted. The first Common Raven nest of this century was found in Region 1. Winter Wren received mixed reviews, House Wren arrived in the mountains before the lowlands, and Sedge Wren was unreported. Thrushes were generally late, Swainson's, Gray-cheeked and Hermit numbers a bit up over last year. Loggerhead Shrike was found only in Regions 1, 2, 5 and 7, with the one nesting attempt in Region 7 failing. White-eyed Vireo appeared in six Regions, but the other vireos were ignored except for arrival dates. Many species of warblers were noted as low in at least a few Regions, with possibly a good count in a region or two. Of special interest were the Blue-winged/Golden-winged interaction now occurring in Region 6; Orange-crowned Warbler in five Regions; Yellow-throated Warbler in Regions 1 and 4; Prothonotary Warbler in five Regions; and most of the other rarities typical of the spring season in short supply. Among the sparrows we have Am. Tree Sparrow lingering into May in Regions 1 and 2; the grassland sparrows with only a few positive notes; and White-throated Sparrow, White-crowned Sparrow, and Dark-eyed Junco flagged as scarce to very scarce where noted at all. With blackbirds generally flying about in huge flocks or on nesting territories all over the countryside,
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**Bold** Regional Record Early *Italics* Also isolated earlier report(s).
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most receive little attention in the spring. Yellow-headed Blackbird appeared in Regions 2 and 5; Brewer's Blackbird in Regions 1 and 2; and Orchard Oriole in Regions 2, 3, 5, 8 and 9; Western Meadowlark was unreported. The winter finches, which often pass in large flocks headed north, were very scarce this spring, with only Pine Siskin present in huge numbers, at least some staying to breed (see especially the Region 8 report with Bob Yunick's banding experiences); scattered reports of both crossbills and Common Redpoll; a single Pine Grosbeak in Region 9; and low numbers of Purple Finch and Evening Grosbeak.

As usual, a few more tidbits and species notes didn't fit with the previous discussion. Among the early arrivals and late departures, none were state records, though Solitary Vireo in Region 1 and Pine Warbler in Region 5 arrived very early and Red-necked Grebe and Tundra Swan stayed very late in Region 2. A 9 May date for American Kestrel hatching in Region 3 appears to be record early for the state.

High counts, in addition to the raptors noted earlier, included: 100+ Blue-winged Warbler in Region 9; 350 E. Meadowlark in Region 5; and counts of 4000 Pine Siskin on 4 May in Region 2 and of 2400 on 29 Apr and 1600 on 13 Apr in Region 5. Few of the questions about migration patterns that I have raised in previous Highlights have produced any relevant data or comments in Regional reports. This season even Mother Nature followed suit; last year's note of outside interest in of Sandhill Crane in New York has been followed by the worst spring for Sandhill Crane reports in the past ten years! Other notes of interest include: American Bittern, as scarce as it is, arrived in the Adirondacks before appearing in the lowland marshes of most other Regions; a new Ring-billed Gull nesting colony in Region 3 (is this really a positive?!); Fish Crow increasing inland, with reports from Regions 2, 4, 8 and 9 in
addition to the nesting birds in Region 3; a seasonal total of 29,182 Am. Crows past Derby Hill (hawk watchers do look at other birds); and several positives for Blue-gray Gnatcatcher. From the Region 1 report, consider Don Clark's 38,000+ birds banded. In the Region 7 report, read the results of the Crown Pt. banding operation, third best in 13 years. Finally, noting all of the reports of Big Day results, is it perhaps time to resurrect the FNYSBBC annual Big Day compilation?

Moving to more systematically assembled data, let us try to extract some quantitative information from the arrival date tables. Once again, I approach this with all of the reservations noted in The Kingbird 37:136-142 and 38:22-23. I have reworked the 25-year averages to extract Region 10, since there is no data from there in this year's table, and have removed other Regions as appropriate when a particular species is missing from this year's data in a particular region. I still have no measure(s) of variance in the data, so this analysis again employs variances derived from Region 2 data as detailed in vol. 37. Overall, seasonality values suggest this season was earlier than last year in Regions 1, 2, 3 and 9 and later in Regions 5, 6, 7 and 8, but the difference is statistically significant only in Regions 2, 7, 8 and 9. Only Regions 7 and 8 differ significantly from their 25-year averages. Region 7 was early, while Region 8 very late and hard to explain, given the data from surrounding Regions, in any terms other a significant change in level of birding activity or reporting. Relative to the 25-year averages, the overall averages of both water birds and land birds do not vary significantly (i.e., differ by more than 2 standard deviations) from the baseline mean this season. Of the individual species arrivals, only Semipalmated Sandpiper and Mourning Warbler were significantly early and Green-backed Heron, Spotted Sandpiper, Black Tern, Marsh Wren, Bank Swallow, Veery, Wood Thrush, and N. Oriole late. If we next consider just that species were early or late and apply a sign test to entire families, none were early as a group whereas thrushes, warblers, and sparrows were late. Looking similarly at groups arranged by expected arrival date, we find species expected before March 20 arrived early, those expected May 1-14 arrived predominately late, and the other dates were scattered randomly. This should provide you with some idea of what can be done with these tables. You could also look for arrival patterns across the state, East to West, South to North, coastal to inland. or whatever you may hypothesize. Is there anything you would particularly like to see done? Is this effort at quantitative assessment of any value at all?

The list of rarities of the season is neither long nor outstanding from most Regions this year. The best are: Region 1 - Eared Grebe, White Pelican, Hudsonian Godwit, Western Kingbird, and Brewer's Blackbird; Region 2 - Thayer's Gull, Fish Crow, “Audubon's” Yellow-rumped War-
bler, and Lark Sparrow; Region 3 - Cattle Egret and Least Tern; Region 4 - Glossy Ibis, Fish Crow, "Lawrence's" Warbler, and Yellow-throated Warbler; Region 5 - Little Blue Heron, Sandhill Crane, Fish Crow, Prothonotary Warbler, and Yellow-headed Blackbird; Region 6 - White-eyed Vireo and Orange-crowned Warbler; Region 7 - White-eyed Vireo; Region 8 - Kentucky Warbler; and Region 9 - Summer Tanager. The B.O.T.S. Award was a difficult choice this season, especially relative to the two boldfaced species above, but it goes to the Northern Wheatear in Region 9, one of a very few spring records for New York.

716 High Tower Way, Webster, New York

Standard abbreviations: county names are shortened to their first four letters and appear in UPPER CASE letters; months are shortened to their first three letters; ! details seen by Regional Editor; ad - adult; Alt - Alternate plumage; arr - arrival or first of season; I - Island; imm - immature; intro - see introduction to report; j - juvenile; L - Lake; max - maximum; mob - multiple observers; NWR - National Wildlife Refuge; NYSARC - report to New York State Avian Records Committee; P - Park; Pd - Pond; ph - photographed; Pt - Point; Res - Reservoir; SP - State Park; spm - specimen; subad - subadult; T - Town of; Twm - township; WMA - Wildlife Management Area; y - young.
March temperatures averaged 2.2 warmer than normal at Buffalo. From 10 through 22 Mar (except for the 12th and 13th) it was unseasonably cold, so cold that the sap failed to run in the maple producer's tubing and reduced the crop in much of southwestern New York to 2/3 normal. Precipitation was about normal in Buffalo but "almost non-existent" at Amity Lake. Snow depths at Buffalo totaled 6.1 inches, just over half the norm. April at Buffalo was "drab and disappointing" according to the Buffalo News. Rainfall was near normal but quite continuous; temperatures averaged slightly above average. The Lake Erie ice boom was removed on 9 Apr and ice disappeared from the Lake as its temperature reached 33° on 23 Apr, compared to 8 Mar in 1987. May temperatures at Buffalo averaged 2.5° above normal. However, the southern tier counties were generally colder than normal and precipitation was almost continuous until the last five days of May, which were warm and without rain. The foliage, which had been held back by cold temperatures in early and mid-May quickly burst forth by the end of the month.

Dan Carrol, DEC Region 8, tells a joyous story about a pair of Bald Eagles at Iroquois National Wildlife Refuge. The male which successfully nested in the spring of 1986 lost his mate in 1987, but quickly found a new one hacked at Alcove Reservoir near Albany. This female was only three years old in 1987 but a good pair bond was maintained. The original male and his new mate returned in the fall of 1987 and built a second nest, but in the spring they returned to the original nest and after activities of various sorts began incubating two eggs on 20 Apr. Hatching occurred on 24 May. The two eaglets seem to be developing normally. Less joyous only because of its outcome is the tale of two Osprey at a nest at Cold Spring, Cattaraugus Co., reported by Tom Jurezak and myself. Found on 27 Apr, one bird was incubating on 8 May. Two eggs were laid but unfortunately they didn't hatch; this is the first recent Regional nesting attempt by Ospreys. Maybe next year it will be a success!

Fran Rew and her team of hawk watchers at Ripley, believe it or not, counted 825 Turkey Vultures on 29 Mar. This is in the southwestern corner of the Region along the Portage Escarpment. They logged 54 days of observations between 20 Feb and 22 May. A total of 2867 TVs were counted during the 54 day period, more than the Moons counted at Braddock's Bay in 1984 (Kingbird 35(1):7-37) and more than passed Derby Hill in 1987 (Kingbird 37:155). There seems to be migration along a broader front here than at Braddock's Bay or Derby Hill.

The waterfowl migration across the southern tier counties continues to be merely a trickle. There were some interesting highlights such as an Eared Grebe, White Pelican, Greater White-fronted Goose and Barnacle Goose at Iroquois National Wildlife Refuge and a Eurasian Wigeon at Tifft Farm Nature Preserve. The Tundra Swan migration was early and spectacular along the southern tier, but ended abruptly. The birds should have arrived on the tundra in good time for nesting. Spring records of Sandhill Crane and Hudsonian Godwit were likewise notable.
Willie D'Anna and Betsy Potter report that along the lake plain the warbler migration started slowly but on 8 and 9 May birds "poured in" and the next two weeks were outstanding. The southern counties were not so lucky. No great waves or abundance of migrants was found. Perhaps the heavy, cold air over the Great Lakes piled them up. Both cuckoo species were widespread in the southern tier.

Earl Shriver, a hawk bander from Pennsylvania, located the first Common Raven's nest of this century in Allegany County on 16 Apr in a mature Red Pine plantation. Vivian Pitzrick was an eager witness later in the day and documented the event for us and Cornell University. On 1 May she reported two well feathered young at the nest edge. Cattaraugus County should follow with a confirmed nesting soon. Other unusual landbird sightings included Western Kingbird, Loggerhead Shrike, Yellow-throated Warbler (3 reports, one a PDBA) and Brewer's Blackbird.

The Cattaraugus County Bird Club honored Don Clark, master bird bander of Farmersville Station, on the occasion of his banding his 38,000th bird, a Mourning Dove. To give you brief results of his efforts he has had 3,111 returns of 48 species, and 119 recoveries of 29 species. Congratulations Don! Thanks go to Regina VanScoy for organizing the event.


Abbreviations: ASP-Allegany State Park; ATwn-Amity Township, Allegany Co; DH-Dunkirk Harbor; INWR-Iroquois National Wildlife Refuge; PTwn-Pomfret Township, Chautauqua Co.; TFNP-Tiffy Farm Nature Preserve; TWMA-Tonawanda Wildlife Management Area.

HAWKS-ALCIDS: Summary hawk migration at Ripley:

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<td>23 Apr</td>
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Ten Mile Road, Allegany, New York 14706

REGION 2 — GENESEE

KEVIN C. GRIFFITH

While birds are the focus to this report, the weather helps to determine the quality and quantity of reports and sightings. This season the weather was quite variable. March began with fluctuations between winter and spring. Days with temperatures in the 30's were followed by highs in the 50's or 60's and warm southwest winds. The overall result was an average of 34.7°, nearly 1.5° above normal. Precipitation, 0.91 inches below average at 1.6 inches, came both as flurries and showers. April began warm but reverted to wintery conditions by mid month. Those cold days periodically were interrupted by warm days, but the result was still a below average temperature of 45°. Precipitation was just

SUMMER, 1988
slightly below normal at 2.32 inches. May alternated between southerly winds and northerly winds from day to day. Temperatures also seesawed. The month's average was 1.8° above normal at 58°, while the total precipitation, 1.73 inches (0.85 inches below average), was a sign of things to come.

The migration generally was better than last year, but still not on par with other recent springs. There were definite positives as well as negatives. Loons and grebes started slowly but picked up in April when the peak totals were recorded. Some persisted into May, including a very late Red-necked Grebe at Braddock Bay. Horned Grebes generally were scarce all season. Double-crested Cormorants began to build in numbers by mid May and were plentiful at Braddock Bay by the end of the month, continuing their recent trend of increasing numbers. Herons were a real disappointment. They were both late and the only unusual species reported was Snowy Egret. Waterfowl numbers showed some very good highs. Tundra Swans were well above last spring’s dismal showing, and Canada Geese continued to be reported in excellent numbers. One highlight of the waterfowl season were the Greater White-fronted Geese found among the Canadas. Duck populations peaked early and, due to some mild days, were mostly gone by early April. As usual a few ducks lingered along the lakeshore in May. Notable reports were the encouraging numbers of Canvasbacks and good totals of Red-breasted Mergansers, and a Eurasian Wigeon was found. Conversely, American Black Duck and Blue-winged Teal seemed to be scarce.

The shorebird season was poor. Habitat was poor early in the season, and by the time it improved, conditions for grounding migrants were poor. Terns and gulls were generally unexceptional. Totals were down and highlights included a Thayer’s Gull and several Forster’s Terns. The latter species has been scarce in recent years.

The spring hawk flights at Braddock Bay also had its ups and downs. March was in a class by itself with a total of 13,976 raptors. A single day total on 26 Mar with 1414 Red-shouldered Hawks amid the daily total of 4,718 was astonishing, and set a new daily high for March. New single day highs were set for Red-tailed and Cooper’s Hawks, with totals of 1628 and 213 respectively, on the same day. Good numbers of N. Harriers passed by in March with an incredible total of 1,043 for the month. Last season’s record total was only 1,072. April brought great anticipation after such an eventful March, but it was not to be. Frank Nicoletti and Brian Mongi manned the lookout for all thirty days of the month, but poor weather produced hours of empty skies. The April total of 24,714 was the lowest in the last three years; there had been single day totals in past years that exceeded this month’s total! While the April total was mediocre, there were some scattered positive notes. A total of 35 eagles were counted with Golden Eagles accounting for 21 of that total. That eclipsed by 5 the total of 16 from all of last year. May started out hopefully but by mid month it too fizzled to almost nothing. The month’s total was 22,713 for the 29 days of coverage. Of these hawks, 20,332 were seen in the first half of the month. May’s highlight was the late Rough-legged Hawk flight with a total of 261 for the month. This was a very high total for so late in the season. A record single day Osprey total of 110 birds was recorded on 9 May, and the single day high for Bald Eagles of ten was set on 10 May. This was nearly half the monthly total of 24. The one noteworthy sighting away from the Hawk Lookout was a Black Vulture. This species has been reported each of the last couple of years.
A positive aspect of the season was the owl flight. Common Barn-Owl was reported from two separate locations. The owl banding project conducted by Jeff Bouton and Clay Taylor gave us a glimpse of a migration which has been somewhat of a Regional mystery. One-hundred one Saw-whets and 19 Long-eared Owls were banded. These numbers far eclipse suspected totals of migrants and don't include any that passed without being banded. A continuation of the program May will give us more insights into the intensity and scope of the owl migration. Short-eared Owls continued to be reported, and breeding was once again suspected in the Region with apparent pairs noted in at least two locations. The summer report may contain an update on this species.

The passerine migration was slow during the early portion of the season. Early arrivals appear to be the result of a change in the coverage by observers during the first part of the season. One interesting feature of the season was the appearance of Fish Crow in nearly the same location and at the approximate date as last year. Is this a hint of a new pattern? Only continued observation and coverage will tell. For the most part the passerine migration was slightly better than last year. Some of the earlier migrants, including Red-breasted Nuthatch and both kinglets, appeared in good numbers. There were a fair number of Winter Wrens but House Wrens seemed down, and Sedge Wren once again was not reported. Hermit Thrushes seemed to be quite numerous, while Gray-cheeked and Swainson's Thrush were found in smaller numbers than usual. The best vireo of the season was a White-eyed at Manitou Beach and seen by many observers. Another was located in the town of Greece. Warblers seemed to be more plentiful this year. Good numbers were banded at the Kaiser-Manitou Beach banding station. The general consensus was that totals for most species were up. Some even stayed later than usual into the season. While the overall warbler picture seemed good, some species were reported in somewhat lower than normal numbers, including Black-throated Green Warbler, Ovenbird and Black-and-white Warbler. These are usually common species. Rarities included Prairie and Worm-eating Warblers. Probably one of the best finds of the season was a pair of Summer Tanagers. Sparrows were highlighted by a Lark Sparrow. Grassland sparrows were tough to find away from traditional haunts, and both White-throated and White-crowned Sparrows were low in numbers. The icterid highlight was a Yellow-headed Blackbird, and Brewer's Blackbird continued its recent string of spring sightings.

The winter finch movement was a disappointment for the most part. The only real highlight was the large numbers of Pine Siskins. Some days saw 1000's moving through, and a female sporting a brood patch was banded late in the season. This seems not to be unusual during heavy flights.

Contributors: Tom Allison, Bob Ambrose, Betty & Martin Baker, Clarence Barg, Nancy Boudrie, Jeff Bouton, Betsy Brooks, Jean Browning, Steve Carlson, Carolyn Cass, Roger Clark, Sharon Clark, Tomma Clark, Anne Clarridge, Jerry Czech, Mike Davids, Dan & Judy Davis, Gertrude Davis, Jean Dingerson, Frank Dobson, Robert Dobson, Bob Dudash, Jeff Dodge, John & Arleen Foster, Dick Garnham, Ralph & Mary Gerner, Kevin Griffith, Harriet Hamilton, Tom Hampson, Robert Hazen, Sandra Hazen, G. Heveron, Marian Hume, Nurak Irasena, ivind Jensen, Brian Keelan, David Levy, Warren Lloyd, Mike Maibohm, Paul Mango, Jane Mason, Robert McKinney, Gordon Meade, Dave Miller, Eleanor Murtaugh, Frank Myers, Joan Myers, Frank Nicoletti, Richard O'Hara, Robert Oswald, Tom Painting, Thomas Penner, Mike Peter, Martha Reinhardt, Patty


REGION 3 — FINGER LAKES

C. K. MELIN

March was dry with plenty of sunshine. The month began with temperatures well below normal, followed by high pressure and sunshine from 5 through 8 Mar. The single Golden Eagle of the Season coasted through Big Flats on 8 Mar, and numbers of Tundra Swans and Canada Geese migrated during this mild period, moving into the Region before a cold front brought some rainfall from 9 to 13 Mar. A low pressure system over Lake Huron brought snow and rain to the Region from 13 to 15 Mar, followed by a period of cold temperature with highs in the 20’s, northwesterly winds, and more snow until 21 Mar. Another cold front on 24 Mar produced heavy rains. From 25 to 27 Mar, a combination of a high pressure system moving over the State and low pressure over the Midwest generated some strong southerly winds. The Bald Eagle nest at MNWR was blown down during this period, and record high numbers of Horned Grebe were reported. There were 60 Horned Grebe in Elmira, and 212 Horned Grebe in a single raft on Cayuga Lake. March concluded with warm temperatures in
the 60's and 70's, seasonal rainfall, and another period of strong southwesterly winds. Most waterfowl numbers peaked at MNWR during the period from 29 March through 5 April.

April started off with a nice, warm first week, but then the temperatures fell below normal and remained that way for the rest of the month. It was the coolest April since 1983. Soil moisture was rated as "adequate" as the agricultural season began to get into motion. The cool temperatures, however, delayed planting and slowed development of the crops that were already seeded. The dry weather pattern that dominated the spring season continued in May. Fine weather allowed farm fieldwork to progress quite well during the first two weeks of the month. Soil moisture was rated as "adequate" during this period. Wet weather during the second two weeks delayed fieldwork and soil moisture was rated adequate to surplus. There were thunderstorms with strong winds and up to an inch or more or rainfall on 12 and 13 May. The weather was warm, but continually rainy through 22 May, with a total accumulation of one to three inches of rainfall for the period. A return to better weather at the very end of the month allowed planting and harvesting activities to get back on track and soil moisture returned to a rating of adequate.

Dry conditions created low water levels at May's Point Pool at Montezuma National Wildlife Refuge (MNWR). There was also fine habitat for transient shorebirds this season at Corning Pond, Dryden Lake, and the Cornell Agronomy Ponds. Maximum numbers for shorebirds during April and May at MNWR are as follows: 19 Semipalmated Plover, 26 Killdeer, 17 Lesser Yellowlegs, 195 Spotted Sandpiper, 2 Sanderling, 26 Semipalmated Sandpiper, 526 Least Sandpiper, 246 Pectoral Sandpiper, 80 Dunlin; a single Wilson's Phalarope was reported. These numbers match or exceed the numbers of shorebirds at MNWR during the Fall Season, when shorebird habitat has been deliberately created for the past two years by opening the dikes to lower the water levels at May's Point Pool.

Waterfowl numbers at MNWR peaked during March and April. Maximum numbers for the Region at MNWR during March were: 6800 Snow Goose, 690 Mallard, 80 Black Duck, 50 Gadwall, 460 Pintail, 180 Am. Wigeon, and 80 Ring-necked Duck. There were a maximum of 50 Hooded Merganser and 230 Common Merganser during March. Peak waterfowl numbers at MNWR during April were: 38,000 Canada Goose, 200 Blue-winged Teal, 440 Shoveler, 440 Wood Duck, 8 Lesser Scaup, and 130 Ruddy Duck. White-winged Scoter, Surf Scoter, and Black Scoter were all conspicuously absent from the Region this Season. Other highlights at MNWR include maxima of 460 Great Blue Heron, 1380 Ring-billed Gull, and 34 Great Black-backed Gull. Black Tern were observed on 8 May, Caspian Tern on 22 May, and a single Least Tern on 22 May. This is the fourth Region 3 record of Least Tern, and the first report since July 1965.

The observation tower at Tschache Pool was closed to the public for several weeks this spring to prevent disturbance of the three adult Bald Eagles that were nesting a few hundred yards from the tower. A 2 May news release from the Refuge explains the events of the spring season: "1988 has been a very unsettled year for the three Bald Eagles. In late January, the birds moved from the pole nest to a tree some 200 yards distant. After partially completing that nest, they moved to a dead tree over water only a few hundred yards away from the Tschache Pool Tower, and began adding to an old Great Blue Heron nest."
"Several days later, for no apparent reason, the birds again moved, this time to an old osprey nest at the base of Clark's Ridge. The birds apparently laid two eggs and incubated them for several days before three days of sustained gusty winds blew down the entire nest on March 25. The next day the birds moved back to the "heron" tree. It is likely that one egg was laid.

"Bad luck continued to plague the birds when on April 16 they abandoned their nesting attempt. The reason for the second failure is still unclear, but may have resulted when the egg was damaged during the incubation process.

"Following the second nesting failure, the birds moved back to the site of the 1987 successful nest. Refuge and State biologists have observed the birds placing sticks atop the platform on the pole installed by NYSEG. Also, other mating behavior has been seen.... The most hopeful sign is that even if an eaglet is not produced in 1988, the adult eagles appear to be locked onto the secure pole nest, rather than the rotten old trees over open water."

The 1987 Northern Goshawk nest at Arnot Forest was checked the first week of May, but trees in the surrounding area had been cut the nest to manage for maple syrup production since last year and the intact nest was unused. Bent (1938) indicates that Northern Goshawk shows a marked preference for the same nesting locality, and when not using the same nest as the previous year, can usually be found nesting in the same locality.

At Sapsucker Woods Sanctuary, Steve Sibley kept track of the Spring Season hawk migration. Spring Season totals included 9 Osprey, 2 Bald Eagle, 22 Sharp-shinned Hawk, 4 Cooper's Hawk, 3 Red-shouldered Hawk, 30 Broad-winged Hawk, and 33 Red-tailed Hawk. A single Rough-legged Hawk was reported in April at SWS, as well as a total of 68 Common Loon during the Season. Staff members at the Laboratory of Ornithology tape-recorded a Common Raven at Shindagin Hollow on 7 March and at Connecticut Hill on 26 March. A N. Saw whet Owl was seen and tape recorded on 11 March. These tape recordings are a good indication of possible breeding in the Region for two uncommon species.

The Cayuga Bird Club held a Big Day Count on 22 May, covering various locations throughout the Cayuga Lake Basin. A total of 149 species were counted. Highlights were an Acadian Flycatcher singing at Michigan Hollow, an Orchard Oriole at Sheldrake, an Prothonotary Warbler singing at May's Point, and the Least Tern MNWR. At Aurora, there were four Oldsquaw and two Horned Grebe, all in breeding plumage. A total of 13 waterfowl species and 23 warbler species were counted. There were no reports this Season of the following warbler species in Region 3: Worm-eating, Kentucky, Connecticut, and Yellow-breasted Chat.

Dick Clements from the Chemung Co. Audubon Society filed the only report of a Cliff Swallow colony, located beneath the Main Street bridge in Elmira. He also reported two large colonies of Bank Swallow in Pine City, nesting Rough-winged Swallow along Seely Creek in Pine City, and the only pair of Orchard Oriole in the Region at Pine City since 14 May. Dick will attempt to confirm the breeding status of the Orchard Oriole next season. Although there were several scattered reports of Orchard Oriole throughout the Region this season, most appear to be transients and/or their breeding status has not been determined. Highlights for the Spring Season were: Cattle Egret, Least Tern, N. Saw-whet Owl, and Common Raven.

Abbreviations: MNWR-Montezuma National Wildlife Refuge; FLNF-Finger Lakes National Forest; YBSF-Yellow Barn State Forest; CLO-Cornell Laboratory of Ornithology; QCM-Queen Catherine Marsh; SWS-Sapsucker Woods Sanctuary.


Box 84A Turkey Hill Road, Ithaca, New York 14850.

REGION 4 — SUSQUEHANNA

Jay G. Lehman

The major meteorological event of each month this spring occurred during the 18th through the 22nd when there was record cold in March and April and heavy rain in May. The first quarter of the moon occurred during this period each month. Perhaps astrologers are right! In any event, the 1988 spring season was as variable as expected for this time of year. The mild weather of February continued into March with above average temperatures until 13 Mar, followed by below average temperatures to 22 Mar. Although spring was due, record lows of 3° and 7° on 21 and 22 March, respectively, were reported at Binghamton. How depressing! The rest of March and the first week of April were warmer than normal. Then temperatures plummeted with 18 days of below normal temperatures until the end of April. Low temperatures of 25° and 24° on 19 and 20 Apr, both tied previous record lows. After three cold days at the beginning of the month, temperatures for the rest of May were about normal, except for a warmer period during the last five days. Precipitation for the period was variable. March was dry with below average precipitation and snowfall, while April had nearly normal precipitation. Most of May was dry as nearly all of the above average rainfall fell during a three day period.

The early thaw of our lakes parallels last year’s. However, unlike last year the waterfowl species list is above average and the number of individuals per species reported is excellent. Perhaps the colder weather during this April delayed the migration and held the birds here. Birders are also commended for their field work and good reports. Unfortunately, we again missed Gadwall, Greater Scaup, and Ruddy Duck, which have been reported in half of the last ten springs. On the bright side, White-winged Scoter made an excellent showing. Other waterfowl reports of note included a Bean Goose on the north end of Otsego Lake, which created a bit of excitement until someone pointed out that it had been there for about three years and therefore is probably an escapee. A reverse migration of Snow Geese into Chenango County on 12 Mar, initiated by stormy, cold weather, was observed by Richard Pancoe in Earlville (Region 5) and reported by Chad Covey. Breeding pairs of Canada Geese in the Region seem to be on the increase. Dave Messineo reports that Common Mergansers appear to be
breeding on the Otselic River where they nested during the Atlas Project. A new reservoir, Millbrook Reservoir, in Chenango County will provide birders a new resource and will be watched closely.

For the second consecutive spring American Bittern reports are up but no Least Bitterns were seen. There was a record early arrival for Green-backed Heron. Last spring’s Cattle Egret fit the pattern of a rare long-legged wader reported here about every third year since 1979. This year the pattern was broken by Great Egret and Glossy Ibis. A well described Glossy Ibis seen on 9 Apr by Marilyn Davis at Upper Lisle Park on the north end of Whitney Point Reservoir is only the second record for the Region. Great Egrets were reported at Whitney Point Reservoir on 6 Apr by Rick Marsi and at Oneonta in early April by Robert Miller.

Turkey Vultures are still increasing. On 29 Mar at Portlandville Mary Dobinsky observed a flock of 20 vultures encouraging a lone Red-tailed Hawk to abandon its kill. Raptor reports were good. Jim Hoteling saw 20 Red-tailed Hawks migrating along a three mile stretch of road near Smithville Flats on 10 April. Rough-legged Hawks stayed late, and Northern Harrier reports were up. Marie Petuh and Anna Casselberry found a Sharp-shinned Hawk nest with young in Glenwood Cemetery on 17 April.

Shorebirds and other waterbirds were well reported. Six species of sandpipers is about average for the past ten years. Pectoral Sandpiper was reported for only the third time in ten years. However, we again missed Upland Sandpiper. Sora and Common Moorhen were reported for the first and fifth times, respectively, in ten years.

Red-bellied Woodpecker, Carolina Wren, Tufted Titmouse, Blue-gray Gnatcatcher, Mockingbird, and Cardinal, which have expanded their range from the south, are still doing well. A Blue-gray Gnatcatcher was seen by Mary Dobinsky in May near Oneonta gathering milkweed silk for a nest. In Broome County Harriet Marsi observed a Carolina Wren nest with young on 23 April. Despite the variable weather in March and April, early migrants such as Nashville Warbler, and Warbling Vireo, returned on record early dates, and a very early Gray Catbird was reported. The generally good weather in May created good conditions for field observation but induced no fall outs of passerines. Consequently, the list of flycatchers, thrushes, vireos, and warblers is excellent, but the usual numbers were reported. Gray-cheeked Thrush, Philadelphia Vireo, Pine Warbler, Parula Warbler, and Palm Warbler; which are often missed, were all seen this year. A well described Yellow-throated Warbler, the second spring record since 1979, was seen and heard singing at IBM Glen, Binghamton, on 27 May by Anna Casselberry and Claire Foster. Despite this good showing, results are mixed for our less common species. There were no Whip-poor-wills, Sedge or Marsh Wrens, and Henslow’s Sparrows. Fortunately, more Purple Martins were seen this year.

The species list of sparrows is very good, and the rarer grassland species, Vesper and Grasshopper Sparrows, were seen in good numbers. The late winter movement of Redpolls continued into March, and the incursion of Pine Siskins during the winter kept populations high through the period. White-winged and Red Crossbills appeared in April and stayed through May. Evening Grosbeaks stayed late.

The species list of 189 plus one hybrid ties that of 1983 as the highest since
1979. Glossy Ibis, Great Egret, Yellow-throated Vireo, Fish Crow, and Lawrence's Warbler are rarities. White winged Scoter, Philadelphia Vireo, Palm Warbler, and Pine Warbler are lesser rarities. Much of this report uses field records of Joe Sedlacek (Windsor, N Colesville), Mary Dobinsky (Oneonta area), Mildred Clark (Delhi), and Judy Bell's banding records (Newark Valley).


Abbreviations: CCBCSC-Cortland County Bird Spring Count (14 May); ChFk-Chenango Forks; CRes-Cannonsville Reservoir; DBCSC Delhi Bird Club Spring Count (21 May); DOASSC-Delaware Otsego Audubon Society Spring Count (21 May); JC-City- Johnson City; NCol-North Colesville; NVal-Newark Valley; OPM-Oneonta, Portlandville, Milford; PTT-Pharsalia Truck Trail; REEC-Rogers Environmental Education Center; WRes-Whitney Point Reservoir.


HAWKS-ALCIDS: Turkey Vulture: arr TiOG 7 Mar (C&JB); max 20 OPM; many sites thereafter. Osprey: max several at 12 sites last week April; last Windsor 22 May. Bald Eagle: max seven CRes 6 Mar (SH); last imm Binghamton 28 Apr. N. Harrier: to four at six sites Apr. N. Goshawk: only report 28 Mar REEC. Red-shouldered Hawk: arr REEC 25 Mar; last DBCSC. Broad-winged Hawk: arr Finch Hollow Nature Center 4 Apr;


VIREOS-WARBLERS: Solitary Vireo: max four OPM 7 May; several at eight sites May. Yellow-throated Vireo: at five sites, max three. Warbling Vireo: at two sites, max four. Philadelphia Vireo: arr Bowman L SP 28 May (DW). Red-eyed Vireo: frequent reports May; max 14 OPM 23 May. Blue-winged Warbler: max four after 8 May. Lawrence's Warbler: one banded Vestal 27 May (GK). Golden-winged Warbler: arr 5 May BROO (GK); max two at four sites from 12 May, good count. Tennessee Warbler: max seven

It was a warm but dry spring. Throughout the Region birders awaited the annual race between warblers and leaves – and the leaves won! It was a strange season, rich in ornithological diversity but lacking any outstanding rarity. Nearly continual favorable weather brought with it the expected paucity of grounded migrants, but the few stretches of bad weather had little to recommend either. These sentiments have characterized several recent springs, yet there has been little evidence that avian populations generally are stressed. However, this season several new species joined the list of species that seem not to be as numerous as they had been in prior years.

The mild winter was followed by an even milder spring. Although total snowfall for the winter was nearly normal, water content of the snow was low and lake levels began to show evidence of a drought that would continue into the summer. We had June in April, April in May and a generally warmer, dryer and sunnier spring than usual. Only May came close to normal precipitation, but almost all of that fell between 18 and 21 May. This period, and a similar but shorter wet spell in late April, were favorable for grounding migrant landbirds, but while the expected variety of species was found, numbers were unimpressive. A few species, most notably Dark-eyed Junco and White-crowned Sparrow were just plain scarce all season, the latter with no reports even reaching a half-dozen individuals. On the other hand the numbers of Swainson's Thrush reported during the mid May rains were an encouraging contrast to the several previous springs, and Derby Hill had a good but not outstanding hawk migration.

Waterfowl numbers were generally miserable, and Lake Ontario opened so early that the gull concentrations that often make birding Little Sodus Bay so memorable in March didn't develop. Diving ducks were especially scarce, and only one individual Brant was reported. Of the terns, only Caspian Tern is doing well, but Double-crested Cormorant continues its explosive population increase and again nested on Oneida Lake this spring. A pair of Osprey returned to Dinglehole Swamp Road near Beaver Lake and were incubating in April. Conditions for shorebirds were good because of low lake levels, but the migration was unexceptional with neither great rarities nor outstanding numbers reported. Upland Sandpipers were very hard to locate. Of the white herons, only Great Egret was reported. The most unusual waterbirds reported included Little Blue Heron, Greater White-fronted Goose, Eurasian Wigeon, Sandhill Crane and Lesser Black-backed Gull. An early May Iceland Gull report has precedent from several previous years.

With one exception, irruptive species were little in evidence this Spring. Numbers of owls (given the lack of a report on the Noyes Sanctuary banding project), Rough-legged Hawks and Northern Shrike were about average. Goshawks, and their prey, Ruffed Grouse, were uncommon. Numbers of Picoides woodpeckers, chickadees, nuthatches, robins, jays and most winter finches were either unexceptional or low. American Tree Sparrow and Snow Bunting numbers were very low and both departed early. No Pine Grosbeaks, just a handful of crossbills, and moderate flights of Purple Finch, Common Redpoll and Evening Grosbeak...
were evident. Pine Siskins, however, were everywhere and in good numbers as well, as witnessed by peaks of 2400 on 29 Mar and 1600 13 Apr at Derby Hill, and a few still remained in the southern part of the Region at the season’s end. There were no confirmed lowland nestings this spring, and the behavior of persistent birds in Syracuse suggested that little or no nesting effort was made.

Numbers of migrating landbirds were unexceptional, though of species which occur annually, only Sedge Wren and Henslow’s Sparrow were not reported. Maxima were generally low. There are very few positives, but also not many obvious absences of breeding birds by the season’s end. Only Eastern Kingbird had a maximum much above a dozen. Swallow peaks were low, especially Barn Swallow which seemed unusually scarce in the Syracuse area, as was Chimney Swift. After several promising springs, kinglet maxima were down, but Swainson’s Thrush made a modest increase this spring. Vireos and warblers were not numerous on migration, the best maxima being those for Yellow and Tennessee Warbler. Yellow-rumped Warbler, which often peaks in four-digit numbers, could only muster 260 past Derby Hill on 8 May. Both Dark-eyed Junco and White-throated Sparrow were scarce during migration, American Tree Sparrow vanished early and White-crowned Sparrow was nearly absent. It was an average spring for southern species, with White-eyed Vireo, Worm-eating, Prairie and Kentucky Warblers, Yellow-breasted Chat and Orchard Oriole all being reported, as well as a much more unusual male Prothonotary Warbler found south of Fairhaven 21 May by Marge Rusk and persisting, to the delight of several other observers, until 25 May. Unfortunately, the two found near Verona Beach on May 28 by Judy Thurber (née D.W. Crumb) did not persist. Also notable were reports of single male Yellow-headed Blackbirds at Hannibal on 10 Apr and at Pennellville on 21 Apr by F.G. Scheider. There are about five previous spring reports from the Region. A total of 241 species, two hybrids and one color morph were reported this season.

For several years Gary Webb has reported Fish Crows from the Utica dump along the Mohawk River, but his reports were not checked. This spring several of the Region’s top birders decided to find out what Webb had been seeing, and the birds were indeed Fish Crows! Only four birds were counted, nearly at the end of the winter period they spend at the dump, but as many as 14 had been reported on earlier dates. Fish Crows leave this site, perhaps to nest along the Mohawk or its tributaries; a tantalizing report during the Atlas period was not far from Utica. Where these birds summer will have to be determined another year. Another indication of the increase of Fish Crows in the Region is two seen migrating past Derby Hill this spring, one on 9 May and the other on 12 May. Details for all observations have been submitted to the NYSARC.


Abbreviations: Adir arr - Adirondacks (n Herkimer Co.) arrival; BRd - Biddlecum Road, Pennellville, Oswego Co.; DH - Derby Hill, Oswego Co.; FH - Fairhaven, Little Sodus Bay and vicinity, Cayuga Co.; LOL - Lake Ontario littoral, Oswego Co.; NPT - northern Pompey township; SPd - Sandy Pond, Oswego Co.; StMC - Saint Mary’s Cemetery, DeWitt, Onon Co.; Syr - Syracuse.

HAWKS-ALCIDS: Derby Hill Hawk Migration Totals - 1988

<table>
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<tr>
<th>Species</th>
<th>Arrival</th>
<th>Max - Date</th>
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<td>6 Apr - 12 May</td>
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<td>15 May</td>
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LOGGERHEAD SHRIKE: one near Texas 2 Apr only report.


Educational Communications, SUNY Health Science Center at Syracuse, 750 E. Adams, Syracuse NY 13210

[Thanks to F.G. Scheider for editing this Regional report – the Editor.]

REGION 6 — ST. LAWRENCE

KENNETH L. CROWELL and GERALD A. SMITH

Cold weather not withstanding, we managed to make some interesting sightings. March was cool and dry, with temperatures running up to 3 below normal and precipitation down an inch or two. There were several small snowfalls, with over 4 in falling on Tug Hill 20-21 Mar. The monthly minimum temperature was -19° at Wanakena on 21 Mar, while the maximum was 75° in Potsdam on 30 Mar. The warm weather the end of March was never equalled in April, which, though cool and wet state-wide, was about average in the North Country. Minimum temperatures in the upper teens accompanied 2 in of snow on 16 and 20 Apr, while the month’s high was 73° in Canton on 7 Apr. Contrary to one’s impression, May was 2-3° warmer than normal while rainfall was an inch below normal.
Temperatures ranged from 29-30 on 4 May to the low 80's on 29-30 May. For the three month period, temperatures averaged about normal while precipitation was 2-7 in below normal.

As usual, the last week of March was marked by the arrival of Com. Grackle, Song Sparrow, Killdeer, numbers of Am. Kestrel, É. Phoebe and several species of waterfowl. Shrubs began leafing out the first few days of May. While May arrivals seemed slow, the species trickled in. With the appearance of Least Flycatcher on 12 May, the contingent of summer residents was virtually complete. Contributors reported the arrival of long-distance migrants to be one to two weeks late, but a tally of 10 neotropical migrants representing 7 groups shows their average arrival date 2.2 days early, while 6 early migrants averaged 4.3 days ahead of schedule.

Marilyn Badger had a nice list of late sightings of winter visitors, including three Iceland Gull at Moses-Saunders Dam on 6 Mar, as many as 19 Com. Goldeneye on the Grass R. to 12 Apr, 36 Bohemian Waxwing in Louisville on 10 Mar, the last Snow Buntings on 23 Mar, and nine Pine Grosbeaks, the only report all year, at Hawkins' Pt. on 6 Mar. It was a good year for Com. Redpoll and an exceptional one for Pine Siskin. Lee Chamberlaine reports a max of 60 Redpolls on 13 Mar with the last on 2 Apr. Marilyn Badger recorded the last Siskin on 6 May.

Fortunately, the Salmonella infection which hit the northeast did not become established in our Region till late April when winter finches were departing from the feeders. There were reports of sick and dead Siskins and Purple Finches from Canton, Potsdam, and Madrid in St. Lawrence Co. and from Antwerp, Theresa and Watertown in Jefferson Co.

Reports of species listed by the state Endangered Species Unit were as follows: Peter O'Shea counted at least 4 pairs of Com. Loon on the Bog River Flow, Colton, on 17 May and a pair with two young on Sucker Lake, Fine, in late May. One adult and two immature Loons arrived at Upper and Lower Lakes WMA on 1 April. Peter also reports a pair of Osprey at a nest site on the Upper Oswegatchie, Fine, in mid-May and a pair at Hitchin's Pond, Colton, on 17 May. There were several sightings in the Canton area after 14 Apr, including two at Upper and Lower Lakes WMA on 22 Apr and one at Trout Lake, Hermon, on 6 May. One was on a nest at Perch River WMA 25 Apr. Marilyn Badger reports 3 immature Bald Eagle on the St. Lawrence River in May, and there was a probable sighting of another at Trout Lake on 10 Apr. G. Spaziani saw an adult Eagle near Mansville on 2 Mar. N. Harrier seemed especially abundant in St. Lawrence Co. this spring. Marilyn Badger reported all three accipiters from Louisville. There were no reports for other listed raptors or of Spruce Grouse. Two pair of Upland Sandpiper in Louisville were the only ones reported. Ten Black Tern were resident at Upper and Lower Lakes WMA after 5 May. The only Com. Nighthawk report was two in Louisville on 27 May. A pair of Com. Raven was at the traditional nest site on Cat Mt. in early May. Bluebirds seemed up, with as many as four pair within a half-mile radius in Pierrepont. Several Vesper Sparrow were singing 10 May on Hadley Rd, Pierrepont, as usual. There were no reports of Sedge Wren or the other grassland sparrows.

Concerning range-expanding species, there were several reports of Great Egret: one from B. Davies near Lowville on 28 April and two from Massena-Louisville and two from Canton between 7 April and 1 June. Seven Turkey Vulture arrived...
at Louisville on 25 Mar, and Lee Chamberlaine's Red-bellied Woodpecker was
last seen in Henderson on 10 Apr. In addition to Lee Chamberlaine's resident
Tufted Titmouse, there were a couple of probables from the Canton-Potsdam
area, one at Judson St. Rd. on 6 Mar. Bill Purcell spotted the first Blue-gray
Gnatcatcher seen in the Region in several years at Southwick Beach SP on 17
May. Even more exciting are two reports for Blue-winged Warbler. Marilyn Badger
reports one from Rte 56 in Louisville on 10 May, the second St. Lawrence Co.
sighting; and Bill Purcell found two (one by voice) on LemaY Rd, Town of Lorraine,
on 17 May. At the same time he identified three Golden-wings by voice, the first
reported in several years, and spotted a singing Brewster's! Has there been a
colony here in the past?! House Finch continues to increase in St. Lawrence Co.,
and was the most common species at Lee Chamberlaine's feeder in Henderson.

May 17 was quite a day for Bill Purcell. At Southwick Beach he also had a
White-eyed Vireo, probably a first Regional Record. He also saw 21 species of
warbler including an Orange-crowned Warbler in Lorraine, the first sighting in
20 years.

From only 5 formal reports, total of 156 species was comprised of 22 water
birds, 14 raptors, 18 waders and shorebirds, 16 miscellaneous and 96 Passerines
including 24 warblers. In addition to species mentioned above, Wood Duck,
Bobolink, Brown-headed Cowbird and Field Sparrow were up in numbers. There
were no Green-winged Teal, and Ring-necked Duck and Green-backed Heron
were down, as was Scarlet Tanager.

Contributors: Marilyn Badger, Lee Chamberlaine, Ken Crowell, Bernard Davies, Jim
Farquhar, John Green, Mike Kadlec, Steve Kremp, Peter O'Shea, Bill Purcell, Gerry
Smith, Gerald Spaziani, and Denise Townsend.

Abbreviations: MSD-Moses-Saunders Dam; PRWMA-Perch River WMA; SBSP-Southwick
Beach SP; ULL-Upper and Lower Lakes WMA; SLR-St. Lawrence River; WHWMA-
Wilson Hill WMA.

LOONS-DUCKS: Com. Loon: intro. Horned Grebe: one ULL 26 Mar, one Louisville
14 Apr. Double-crested Cormorant: one ULL 26 May, still unusual in this area. Great
Blue Heron: actively nest-building at 25 Apr. Great Egret: intro. Green-backed Heron:
only one reported! Yellow-crowned Night-Heron: one Louisville 23 Mar, good descrip-
tion by MB. Snow Goose: 60 Henderson 27 Mar, 200 Glenfield; three blue morph Hen-
derson Pd Mar 27 (LBC). Canada Goose: arr Henderson 9 Mar, max 6000 Henderson
Pd 20 mar, last 4 May. N. Pintail: max 250 Belleville 20 Mar. N. Shoveler: max 12 PRWMA
25 Apr. Wood Duck: numbers way up, with sightings of as many as seven (five m, two
f) on our farm pond in Pierrepont and similar numbers at a puddle in a cornfield in
Mar, 27 MSD 16 Mar. Gadwall: good numbers at WHWMA and PRWMA late Apr. Red-
ULL 26 Mar; three WHWMA 17 Apr. Hooded Merganser: regular at our farm pond in
Pierrepont in Apr, max two male, one female 13 Apr.

Hawk: very few; arr Streeter Lake, Fine 20 Apr; one S Colton 26 May. Am. Kestrel:
abundant, almost one per mile for most of Apr; then fewer when nesting. Gray Partridge:
24 Hawk's Pt, MSD entire period. Wild Turkey: scattered reports from central StLA.

212 THE KINGBIRD


KLC – RD 4 Box 97, Canton, New York 13617
GAS – P.O. Box 498, Mexico, New York 13114

REGION 7 — ADIRONDACK-CHAMPLAIN

JOHN M.C. PETERSON

Migration was late. There were 80 species for which arrival dates were reported both last year and this. Of these, 51 species arrived later this year than in 1987, only 24 species were earlier, and 5 shared the same arrival date in both years. If waiting for arrivals was frustrating, there were some rarities like the White-eyed Vireo seen by Charlcie Delehanty at Little Tupper Lake on 14 May to make the wait worthwhile.

March weather was erratic, dropping from the 40's at midmonth to -26°F at Owls Head 21 March. Wood frogs and spring peepers were calling 6 Apr at Elizabethtown, but April saw cold, south winds at midmonth that brought rain and mixed wet snow on 15 Apr, covering the lower mountains again and discouraging hawkwatchers. Newcomb was 22°F on 19 Apr, reflecting temperatures 10°F colder than normal for the season. A late snowstorm 21 Apr left 6 inches at Saranac Lake and 4 inches at Elizabethtown. Not until 5 May did the mercury climb into the 70's. May 6 was the warmest day in 7 1/2 months, with a high of 72°F at Ticonderoga, only 4 1/2 feet of snow left in the High Peaks, and Lake
Champlain warmed to 40°F. Yet there were nights of frost at elevations as low as Crown Point peninsula 8 May and at Elizabethtown 12 May. On 13 May, south winds of 50 mph swept up the Champlain Valley. Between the high winds, waves, and the rains that followed, the census of Ring-billed Gulls on the Four Brothers Islands could not be carried out for the first time in seven years.

Coot Hill hawkwatch received an unprecedented 24 days of coverage between 13 Apr and 14 May, thanks to an extraordinary effort by Elsbeth Johnson. A total of 627 raptors of all 15 hoped-for species were tallied, in spite of the delayed migration and often adverse conditions. The first Broad-winged Hawk did not appear until 22 Apr, and kettling numbers were delayed until 4 May, when a seasonal high of 64 were counted. The best day for numbers was 4 May, with 127 hawks. The first Golden Eagle, an adult, passed over on 4 Apr; the first Peregrine Falcon, described as a “Tundra” bird-of-passage, went through 25 Apr. On 3 May, an immature Golden Eagle at 12:45 DST was followed by an adult Bald Eagle 15 minutes later, and the sweep of rarities was completed at 2:45 p.m. when a Peregrine Falcon came over Bulwagga Mt. and did aerobatics near an Osprey before diving a thousand feet toward the valley floor at Crown Point. Numbers of Osprey seemed especially encouraging, with 83 passing the Coot Hill lookout between 20 Apr-13 May. We appreciate the dedicated effort that provided these records.

Passerines were similarly late arriving on Crown Point peninsula, where banding operations were conducted from 6-16 May. The first week was marked by frosts, strong south winds, and sunny days, but few birds. The final total of 31 species (third best of the 13 consecutive years for this station) was due largely to warbler waves on the last morning, just before rains arrived. Not until the hawthorns leaved out at midmonth, and were as promptly munched by proliferating “little green worms,” the staple of migrants, did the small landbirds consent to push northward in any numbers. New to the station were a male Mourning Warbler netted 14 May and a female Prairie Warbler banded 16 May, bringing the cumulative list since 1976 to 72 species, of which 24 are warblers. Other banding highlights included two Blue-gray Gnatcatchers, a Northern Mockingbird, and two Lincoln’s Sparrows. There were returns of a 1986 Blue Jay, 1982 and 1987 Black-capped Chickadees, and 1987 Brown Thrasher, Field Sparrow, and Northern Oriole.

This promises to be a good year for reintroductions in the Adirondacks. Bald Eagles were reported nesting at Franklin Falls and usurped the Osprey nest at Meacham Lake. New Peregrine Falcon eyries were located at Hurricane Mt. and Split Rock Mt.

Common Ravens are individually dominant over American Crows, but seldom attack them, and numbers of crows can dominate and harass ravens. The Elizabethtown Post of 2 May 1907 suggested that the origin of Raven Mountain’s name derived from the many ravens there, but they were finally driven away by crows. Habitat changes and the extirpation of large mammalian predators may, of course, have prompted the final showdown and virtual disappearance of the raven for three-quarters of this century. Both species now coexist in this same area, but it was with a sense of déjà vu that this editor watched a crow repeatedly attack a raven, driving it off over Raven M. at 9:20 AM on 5 May 1988, over 80 years after the Post article, the north slope having been heavily logged during this decade. Moreover, during the following week, crows were seen chasing a raven westward across the open space of Crown Point peninsula.
on three different days, a most unusual lowland penetration by Common Ravens, although they nest along the ridgeline bordering Lake Champlain. On the afternoon of 13 May, a raven braved winds and spray to cross Bulwagga Bay from Port Henry to the peninsula, where the local crows gave up their harassment of a Great Horned Owl to mob their larger corvid relation.

About 169 species were reported, but a number of relatively common species went unreported and missing Birdathon lists might have fleshed out the seasonal totals somewhat. A one-spot Birdathon on Crown Point peninsula yielded 60 species, while the team of Elsbeth Johnson and David Rutkowski managed a "Century Run" of 106 species in eastern Essex Co. 15 May.


Abbreviations: CH-Coot Hill hawkwatch; CP-Crown Point peninsula.


TANAGERS-WEAVERS: Field Sparrow: intro. Fox Sparrow: arr Owls Head 17 Apr,

Discovery Farm, RD 1, Elizabethtown, NY 12932

**REGION 8 — HUDSON-MOHAWK**

**LINDA ARMSTRONG**

Plenty of sunshine and below normal amounts of precipitation during the early part of March enabled birders to shake the freezing winter blues and go outside looking for first arrivals. Sure enough, the first Killdeer arrived, followed closely by American Woodcock and Common Snipe. When the month closed with cold, nasty temperatures, we certainly wondered why the Tree Swallows didn't reverse directions and head back to warmer conditions. Then the first week of April brought smiles as above normal temperatures prevailed. The first Osprey arrived and many a yard was filled with the song of Ruby-crowned Kinglets. However, the wonderful weather was not to continue, and the remainder of the month was chilly. Although there were many, many days with some form of precipitation, the month totals was actually below normal. By the end of the month, Region 8 yards were filled with a mixture of winter and spring sparrows, and there were migrants to be found if birders looked hard enough. Of course May is the month of our primary migration activity. Precipitation totals for May were below normal, while temperatures were above normal with the warmest days at the end of the month. Unfortunately, reports from Region 8 observers do not illustrate a fun-filled migration for birders. In fact the most frequently reported total on a given day for a warbler species was one, only a single representative of a species had been found. There was not one single report of a tree 'dripping' with migrants.

During the spring season, Region 8 did experience a notable invasion of Pine Siskins and a few observers kept tallies throughout. Tom Palmer's yard in the Town of Florida supported a large flock and on one particular day 99 birds were banded. Alan Mapes reported flocks of up to 60 at Five Rivers, Barbara Putnam described flocks of 30 and more at feeders in Glens Falls, Laura Meade kept records of many flocks numbering up to 100 in various locations in the Hague area, and Linda Armstrong fed thistle seeds to flocks numbering close to 100 all season in Clarksville. Robert Yunick reported numbers banded in his Schenectady yard: 67 in Feb, 74 in Mar, 1999 in Apr and 1012 in May, along with 1100 recaptures. During April banding days in both Schenectady and Florida, birds were found with eggs in their oviducts. He reports this to be a first in his experience for the month of April. He then found the first young in his yard on 29 Apr and caught a record of 34 young of the year from 29 Apr to 19 May.

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Contributors: Ethel Andrus, Malcolm Archard, Linda Armstrong, Joseph Bach, Penny Bolton, Richard Bolton, Beth Brunet, Michelle Brunet, Paul Connor, Bill Cook (BCK), Edward Crabbs, Bruce Craig, Anthony DeFranco, David DeFranco, Richard Dykstra, Jean Feibusch, Imogene Frasier, Thomas James, Chad Jordon, David Lawrence, Alan Mapes, Kevin McGrath, Laura Meade, Cathy Nast, Tom Palmer, Barbara Putnam. Elton Rising, Mark Rutkowski, Jim Sotis, Joyce Thyrring, Jamie Trudeau, Ken Yaw, Robert Yunic.

Abbreviations: FREC-Five Rivers Environmental Education Center, Delmar; CGCC-Columbia Green County Community College; RVWB-Rip Van Winkle Bridge.


THE KINGBIRD

REGION 9 — DELAWARE-HUDSON

HELEN C. MANSON

The fluctuating temperatures of March averaged out to be slightly colder than a year ago but slightly warmer than normal; the highest temperature was 73° on 24 Mar, the lowest 6° on 22 Mar. The ice was out of the Hudson River by mid month and out of the inland ponds a week later, when the waterfowl were moving through. The number of Canvasback was down for the second year in a row, and Blue-winged Teal were very scarce. April was dry with only 1.15 inches of participation and temperatures remained cool and unsettled. There were many days with sharp northwest wind and below freezing temperatures. Early migrants were slow arriving until a flurry of activity occurred at the end of the month. Pine Siskins and Purple Finches flocked to the feeders. May arrived wet and cool. The coolness held back the foliage until mid May. Migration was slow and peaked 14-15 May when most Spring Bird counts were held.

An adult male Northern Wheatear was seen at Milton Point, Rye, on 7 May. It was observed by several people and was in perfect breeding plumage. Peregrine Falcons bred on the Tappan Zee Bridge and hatched three young, the first record of breeding Peregrines in the Hudson Valley since 1951. A young male Summer Tanager was seen by Tom Burke at Rye Nature Center on 21 May, and an adult male in breeding plumage found on Butts Hollow Road by Helen Manson and Barbara Butler on 14 May was the second Dutchess County record, the first a female at Cruger Island May 1962. This adult male was observed well for about fifteen minutes. The Humpo Marsh in Ulster County continues to be of great
interest. Many waterfowl and shorebirds stop there on migration and some stay to breed along with Tree Swallows, Red-winged Blackbirds and rails. A pair of Otter were seen there in early May. The dam left by the departing Beaver is somewhat weakened and may, in time, lower the water level. The surrounding fields are filled with Bobolinks, meadowlarks, Savannah Sparrows and other interesting birds.

Contributors: John Askilsen, Barbara Butler, Frank Brown, Lysle Brinke, Tom Burke, Walter Friton, Florence Germond, Thelma Haight, Alice Jones, Jim and Mary Key, Jed Kiel, Helen Manson, Doris Metraux, Barbara Michelin, Eleanor Pink, Selden Spencer, John P. Tramontano, Edward Treacy, Marion VanWagner, Otis Waterman, Mary Yegella.

Abbreviations: Basha-Bashakill Wetlands; EMBC-Edgar Mearns Bird Club; HMHW-Hawk Mountain Hawk Watch; Mland-Marshlands Sanctuary, Rye; MPHW-Mount Peter Hawk Watch; SCAS-Sullivan Audubon Society; 6MS - 6 1/2 Mile Sanctuary; WMC-Waterman May Census 14 May.


HAWKS-ALCIDS: Black Vulture: two just below Mt Peter 11 & 20 Mar, two Bear Mt 9 Mar (WF). Osprey: max 12 Basha 24 Apr, pair remained through May may attempt


FLYCATCHERS-STARLINGS: Olive-sided Flycatcher: one Cary Arboretum 7 May, early; one singing Crumb Elbow Cem 31 May (JMK); one Pound Ridge 15-17-May. Yellow-bellied Flycatcher: one Mlands 21 May (TB LB). Acadian Flycatcher: two vocalizing Basha 20 May (EMBC), one Mlands 21 May, one Pound Ridge 22 May, one Verbank 24 May (BB), one Deep Hollow 26 May (MVW). Alder Flycatcher: one Pound Ridge 22 May, one Middletown 20 May (EMBC). Willow Flycatcher: widely noted 20 May (EMBC). E. Kingbird: 97 WMC. Horned Lark: March migrants widely noted, no breeding pairs noted (JPT); confirmed nesting Rhinebeck, one Verbank 15 May, one Hyde Park mid Apr, bummer crop for DUTC. Red-breasted Nuthatch: seven reports SULL, two pair Basha. Com. Raven: pair observed from Bear Mt 9 Mar, one seen three times, perched as close as 25 ft 23 Apr (DM, WF). Red-breasted Nuthatch: seven reports SULL.


Purple Finch: few noted (JPT), good numbers at feeders Apr into early May. Red Crossbill: five Kent 15 May, settling in for night in white pines; ten Fishkill 8 and 27 Apr (K McDermott); 12 Amenia 1 Apr, ten 4 Mar, 22 Middletown 5 Mar (JPT). Com. Redpoll: 15 Middletown 1 Mar (JPT), one at feeder Wappingers Falls 4 Mar, two Pawling 5 Mar. Evening Grosbeak: common SULL in Mar, none ORAN, 50 at feeder Pawling Apr.

–Moores Mills, RD 4 Pleasant Valley, NY 12569

[There is no Region 10 report. The new editors for Region 10 are Al Wollin, 4 Meadow Lane, Rockville Centre, NY 11570 and Seymour Schiff, 603 Mead Terrace, S. Hempstead, NY 11550. Please help them to a good start by submitting your reports as early as possible.]

It is with deep sorrow that we report the passing of Constance Wilkins on 16 September 1988 after a brief hospitalization. While all involved with the operations of the Federation may take small solace in knowing that, before she left us, Connie knew how very much we all appreciated everything that she has contributed to our organization, we once again affirm, Thanks, you are and will be missed.
For descriptions of Regions see Kingbird Vol. XXXVII No. 1, p. 9-10.

REPORTING DEADLINES

Winter Season: December, January, February
Deadline is March 7

Spring Season: March, April, May
Deadline is June 7

Summer Season: June, July, August
Deadline is September 7

Fall Season: September, October, November
Deadline is December 7
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